

# GRAPHTEC

## FC7000Mk2 Series

### FC7000Mk2-60-75-100-130-160

*Advanced Multi-functional Cutting Plotter Technology for Plotting, Cutting and Pouncing Applications.*

- ARMS Advanced Registration Mark Sensing System
- Industry Leading Cutting Speed
- High Cutting Force
- Smooth & Accurate (15 m tracking)
- Expanded model lineup
- User-friendly interface
- Expanded software compatibility



FC7000Mk2-75  
30 inch

FC7000Mk2-100  
42 inch

FC7000Mk2-130  
54 inch

FC7000Mk2-160  
64inch

**NEW!**  
24 inch model



FC7000Mk2-60  
24 inch

Store Banners

Screen Photo Masks

Traffic Signs

Vinyl Graphics

Window Signs

Sandblast Signs

# The world's most high-performance cutter in its class

An all-in-one cutter head for supporting additional applications to improve productivity and reliability.

## **600gf maximum cutting pressure**

*Highest cutting pressure in its class for cutting wider range of materials*

## **1485mm/s maximum cutting speed**

*Fastest cutting speed in its class for the highest productivity*

## **Reliable long-length tracking capability**

*Strengthened body for secured media feeding*

*The FC7000Mk2 series succeed high performance and functionality, and provide the world's greatest class of cutting quality and productivity. Further more, a newly designed media basket provides a more stable long length cutting than previous model for 15 m (50 feet) tracking guarantee\*<sup>1</sup>.*

\*1: When using Graphtec specified conditions



## **The newly designed media basket for standard accessory**

A new designed media basket is available for all FC7000Mk2 series facilitates dust-free cutting/plotting operations and enhanced media tracking for long, continuous project applications.

The collapsible front and rear baskets keep the media off the shop floor preventing dust and residue accumulation on the media. This feature can even enhance the plotter's tracking performance.





## New functions for better productivity

ARMS is just one of the great technologies integrated in FC7000Mk2 ... other standard features are included to increase your productivity.

### Automatic cross cutter

The automatic cross cutter provides a simple solution for obtaining a straight sheet cut-off of your finished job. Choose from a standard or heavy-duty cutter.



### Light pointer

The light pointer provides an alternative to the automatic ARMS system, allowing users to manually detect registration marks. This feature is especially useful when working with highly reflective material as well as tracing cut jobs for proofing prior to cutting the job.



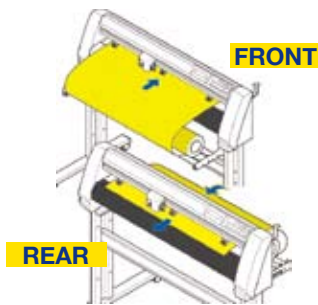
### Variable push roller pressure

Depending on the media type being used, the FC7000Mk2 allows users to choose from 2 selectable push roller settings for optimum media feeding performance.



### Bi-directional media loading

For the ultimate convenience and versatility. Users now have the capability to load media from either the front or back of the FC7000Mk2, depending location and convenience of the plotter.



## New design for easier operation

The FC7000Mk2 is designed with user-friendly features such as easy-to-use menu navigation.

### Blade length navigator

The new blade length navigator provides the user the control of obtaining optimum blade length extension for their selected material thickness. This feature also virtually eliminates the chance of damaging the blade.

### New media supply mechanism

The new media supply mechanism assists users to load and align the media accurately. This feature also prevents media from accidentally feeding out of the roll during a cutting operation, saving operator frustration ... increasing overall productivity.



### Plotter Controller

This software allows direct control of a wide range of FC7000Mk2 functions from a PC, including cutting speed, cutting pressure, pen movement, and ARMS control. The ability to control various plotter settings from a PC

dramatically improves work and operating efficiency.



# ARMS

## Advanced Registration Mark Sensing System

The powerful ARMS (Advanced Registration Mark Sensing System) feature simplifies contour cutting of printed images as well as significantly improving overall productivity for contour cutting items such as labels or stickers.

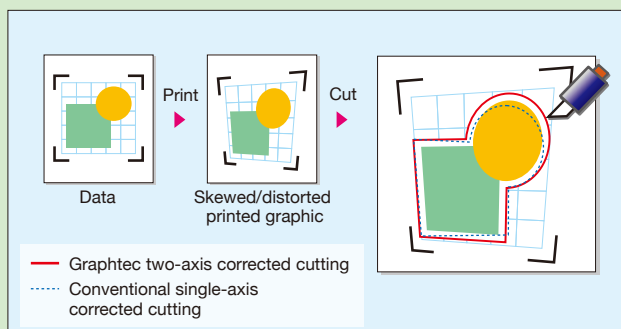
ARMS includes several automatic registration mark sensing that makes it even easier to read the registration marks (position alignment marks) along with several types of patterns such as the Segment Area Correction that ensures accurate cutting along the entire length of even large and long-format drawings.



### Four-point registration mark (two-axis skew) correction

ORIGINAL

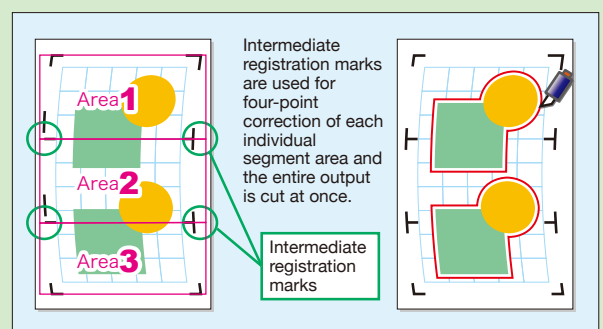
Four-point registration mark sensing and X/Y-axis correction uses high-precision positioning to ensure accurate cutting of graphics that have been skewed or distorted during printed.



### Segment area correction

ORIGINAL

The intermediate registration marks in the media feed direction are detected to allow four-point correction for each individual segment area. This enables high-precision positioning of the whole area of skewed prints produced using long-length printing.



**Includes a range of software applications that improve work efficiency and simplify operations.**



**Large LCD display w/back light**

A large backlit LCD display allows users to quickly glance at all cutting conditions.



**Main Features**

- Cutting conditions setting
- Test cut
- Position move
- Rotation
- Origin point
- Key board control
- Registration mark setting
- Auto-mark reading
- Mark size, distance

OS version Windows, 2000, XP, Vista

\* USB I/F only  
\* Windows Vista compatible driver/software is available at Graphtec website

**Cutting Master 2**

This plug-in software allows direct cutting from graphics applications. For higher productivity, create graphics or text in Adobe Illustrator or CorelDraw, then simply output directly to the plotter.



**Main Features**

- Direct output from the software
- Output by layer / color
- Possible to check the cutting lines by preview window
- Multiple over cutting is possible
- ARMS can be controlled by software
- Centering, Rotate, Mirror for easy layout
- Matrix copy for higher productivity
- Auto-welding for binding same color of shapes
- Tiling / Paneling for segmentation of cutting

OS version Windows, 2000, XP, Vista  
Mac OS X, 10.2 or later

Software version Illustrator for Windows 8, 9, 10, CS, CS2, CS3  
Illustrator for Mac 10, CS, CS2, CS3  
Corel DRAW 10, 11, 12, X3

**Optional Features...**



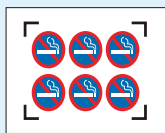
**Multimedia stocker**

Maintain up to 3 extra full-length rolls conveniently at the foot of your plotter. The media rack option enhances job efficiency and productivity by allowing you to quickly switch between media rolls or directly feed material from the rack. Each optional rack holds one full-length roll of media for easy, quick roll exchange and allows you to switch between media color, type, and size with minimal effort.

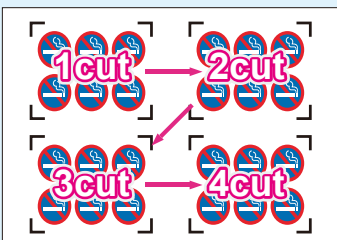


**Multiple registration mark correction**

Layout instructions are sent together with the cutting data for designs printed using layout functions such as set in a RIP, enabling continuous detection of registration marks for cutting. This feature is excellent when high accuracy is needed when cutting an array of copies.

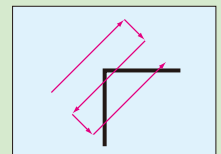


Cutting data sent to plotter with layout instructions



**Automatic registration mark detection**

The first registration mark is detected automatically, eliminating the need to move the sensor to the registration mark manually. Subsequent registration marks are automatically redetected even if sensing errors occur, simplifying the process of registration mark sensing.



**Supports registration mark commands**

Registration mark commands are provided to control ARMS functions from a PC. Registration mark data including size and spacing can be controlled to simplify operations.

- Cutting Master 2
- Plotter Controller

The ARMS head minimizes environmental influences that could otherwise cause incorrect readings of registration mark sensing.



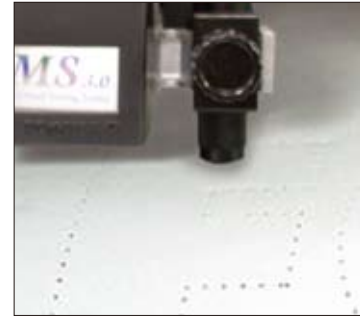
## Variety of applications...



**Vinyl cut**



**Pen Plot**



**Pouncing**

The unsurpassed versatility of the FC7000Mk2 series is further augmented with its capability to plot, cut and pounce without having to alter the plotter's mechanical configuration. To configure the FC7000Mk2 for any job-specific setup among test plotting, cutting or pouncing paper stencil, simply install the specific tool required for the next job and select one of the eight user-programmable settings that corresponds to the type of tool (as well as any other pertinent job requirements).

### The variegated material is cut.

**Reflective Film, Sandblast material, EC Film, Polyester Film, Rubylith, Tint Film, Screen Printing, Car Window, Traffic Sign, Masking Stone/Glass Sign, Automobile Paint Protection, Garment Vinyl, Signage, Vehicle Graphics, Vinyl, Paper, Sticker**

## Sophisticated tangential control algorithms



When the Tangential Control mode is engaged, the FC7000Mk2 over-cuts the mechanical tangential system both in speed and output quality by precisely and intelligently controlling the blade rotation. The on-board tool height sensor detects the blade tip's landing on the media surface, then intelligently and precisely aligns the blade rotation for the following cutting operation, all in a fraction of a microsecond.

Graphtec's proprietary technology allows this sophisticated feature to completely eliminate distorted, rounded, or lifted corners - even when highly intricate design cutting is required on 0.025 mm (1 mil) vinyl film or up to 1.25 mm (50 mil) sandblast rubber. This innovative and high precision system architecture is what enables the FC7000Mk2 to cut text strings as small as 1.58 mm (1/16 inch) on vinyl. There is no other cutter/plotter on the market that can match the FC7000Mk2 Series' unsurpassed precision and built-in intelligence.

## Tool Soft Landing Intelligence



Improved cutting/plotting quality and prolonged tool life are just a few of the outstanding standard features you can expect from the FC7000Mk2 series, made possible by the innovative Tool Soft Landing Intelligence. The Graphtec proprietary closed-loop servo actuator, with an integrated precision sensor, ensures quick, precise, yet gentle tool contact with the material surface during up and down motions. In addition to superior and accurate output, the Soft Landing feature prolongs the life of the cutting/plotting tool and maximizes throughput performance.

The innovative Tool Soft Landing Intelligence provides not only consistent and optimum cutting quality throughout the job, but the benefit of cost-saving tool maintenance as well.

# Specifications

Model	FC7000Mk2-60	FC7000Mk2-75	FC7000Mk2-100	FC7000Mk2-130	FC7000Mk2-160
CPU	32-Bit				
Configuration	Digital Servo Friction feed with MicroGritroll™ drive				
Max. cut area (expanded mode)	610 mm x 50m (24 in x 164 ft)	762 mm x 50m (30 in x 164 ft)	1067 mm x 50m (42 in x 164 ft)	1372 mm x 50m (54 in x 146 ft)	1626 mm x 50m (64 in x 146 ft)
Guaranteed precision cutting area	590 mm x 15m (23.2 in x 50 ft)	742 mm x 15m (29.2 in x 50 ft)	1047 mm x 15m (41.2 in x 50 ft)	1352 mm x 15m (53.2 in x 50 ft)	1606 mm x 15m (63.2 in x 50 ft)
Mountable media	Max. width	770 mm (30.3 in)	920 mm (36.2 in)	1224 mm (48.1 in)	1529 mm (60.1 in)
	Min. width	50 mm (2 in)			
	Max. diameter	200 mm			
	Max. weight	12 kg (26 lbs)	12 kg (26 lbs)	16 kg (35 lbs)	20 kg (44 lbs)
Max. cross cut area	730mm (28.7 in)	901mm (35.5 in)	1206mm (47.5 in)	1511mm (59.5 in)	1765mm (69.5 in)
Max. cutting speed (Axial)	1485 mm / sec (58.5 in/s) at a 45° angle				
Max. axial acceleration	4.0 G (39.2 m/s <sup>2</sup> )				
Cutting pressure	20 g to 600 g (0.196 N to 5.88 N) in 48 steps				
Min. character size *1	3 mm (0.125 in) alphanumeric Helvetica med. Font				
Mechanical resolution	0.005 mm (0.0002 in)				
Programmable resolution	GP-GL : 0.1 / 0.05 / 0.025 / 0.01 mm , HP-GL™ : 0.025 mm				
Repeatability *2	Max. 0.1 mm / 2 m (0.0039 in / 80in)				
Tools	Accepts (1) cutting blade, (1) plotting pen, and (1) pouncing tool ; Second penholder (optional)				
Blade types	Supersteel (0.9 mm or 1.5 mm), Sapphire(1.5 mm)				
Pen types	Water-based fiber-tip, oil-based ballpoint, and disposable ink pens				
Pouncing tool type	Requires optional pouncing tool : (PPA33-TP12, 1.2-mm pin diameter)				
Media types	Self-adhesive vinyl film, diamond grade, fluorescent film, reflective film, Amberlith™ , Rubylith™ , window film, high-intensity reflective film*3 , paint protection film, up to 0.25 mm tick , sandblast resist rubber up to 1 mm thick, etc.				
Compatible paper for pouncing	Regular paper from 0.06 to 0.13 mm thick				
Standard interfaces	RS-232C / USB2.0 (Full speed)				
Buffer memory	2 MB				
Command sets	GP-GL / HP-GL™ *4				
LCD Panel	LCD 20 x 4 - Supports 7 languages: with amber backlight				
Power supply	100 to 240 VAC/50 to 60 Hz (Auto switching)				
Power consumption	160 VA max.				
Operating environment	Temperature: +10° C to +35° C				
	Humidity: 35 % to 75 % (non-condensing)				
Guaranteed accuracy environment	Temperature: +16° C to +32°				
	Humidity: 35 % to 70 % (non-condensing)				
External dimensions (W x D x H) including stand *5	1110 x 715 x 1210 mm	1260 x 715 x 1210 mm	1560 x 715 x 1210 mm	1860 x 715 x 1210 mm	2120 x 715 x 1210 mm
	43.7 x 47.6 x 28.1 in	49.6 x 47.6 x 28.1 in	61.4 x 47.6 x 28.1 in	73.2 x 47.6 x 28.1 in	83.5 x 47.6 x 28.1 in
Weight including stand	36 kg (79 lbs)	39 kg (86 lbs)	43 kg (95 lbs)	51 kg (112 lbs)	59 kg (130 lbs)
Compatible OS	Windows 2000/Windows XP/Windows Vista *6 Macintosh OS 9.X to 10.X				
Certifications	UL, cUL, CE marking, RoHS				

\*1 The CB15UB cutter blade is recommended when cutting characters which size is 10 mm or smaller.  
 \*2 When operated with Graphtec specified media and conditions.  
 \*3 The CB15UA cutter blade and a reinforced backing sheet must be used when cutting high-intensity reflective film.  
 \*4 HP-GL™ is a registered trademark of Hewlett-Packard Company.  
 \*5 Tolerance : +/- 5 mm  
 \*6 Windows Vista compatible driver/software is available at Graphtec web site (from middle of July, 2007)

## Standard accessories

- AC power cord
- USB cable (3-m length)
- User Guide CD-ROM  
Contains: User's Manual(pdf) and Windows driver, Windows / Macintosh Plug-in Software
- Quick Start Manual, Usage Precautions
- Cutter holder (PHP32-CB09N)
- Water-based fibertip pen
- Cutter blades (CB09UA-2)
- Stand
- Media bracket
- Media basket

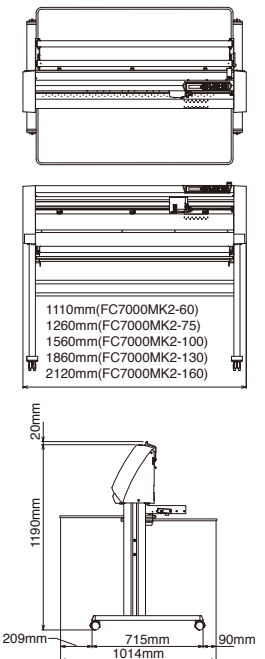
## Options

Item	Model	Contents
Multimedia stocker 60	RSK0014	Roll Media stocker FC7000Mk2-60
Multimedia stocker 75	RSK0010	Roll Media stocker FC7000Mk2-75
Multimedia stocker 100	RSK0011	Roll Media stocker FC7000Mk2-100
Multimedia stocker 130	RSK0012	Roll Media stocker FC7000Mk2-130
Multimedia stocker 160	RSK0013	Roll Media stocker FC7000Mk2-160
Second penholder	ECK006	Factory installed option

## Supplies

Cutter plunger	1 plunger for the 0.9 mm diameter supersteel blade 1 plunger for the 1.5 mm diameter supersteel blade 1 plunger for the 1.5 mm diameter supersteel blade with grease 1 plunger for the 1.5 mm diameter supersteel blade for CB15-5SP and CB15U-K30-5SP
Cutter blade	Set of 5 0.9 mm diameter supersteel blades with spring for common marking film Set of 5 1.5 mm diameter supersteel blades for thicker marking film Set of 2 1.5 mm diameter supersteel blades for cutting detailed characters (within 10 mm) Set of 5 1.5 mm diameter supersteel blades for sandblast rubber sheet Set of 5 1.5 mm diameter supersteel blades with spring for intensity reflective media.
Pouncing pen	One set of plunger and needle 1 each black, red, violet, brown, blue, green, orange, pink 2 black, 1 each red, blue, green 5 red 5 black 5 blue 5 green
Water-based fiber-tip pen	Set of 2 2 black, 1 each red, blue, green
Oil-based ballpoint pen	with ink tank
Disposable ink pen plunger	Set of 4 0.2 mm diameter black for paper Set of 4 0.3 mm diameter black for paper Set of 4 0.5 mm diameter black for paper Set of 4 0.2 mm diameter black for film Set of 4 0.3 mm diameter black for film Set of 4 0.5 mm diameter black for film
Disposable ink pen	Pen type loupe with 6x magnification
Loupe	Supersteel blade
Cross-cutter unit High functional type	

## External Dimensions



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**GRAPHTEC**  
Graphtec Corporation

503-10 Shinano-cho, Totsuka-ku, Yokohama 244-8503, Japan  
 Tel : +81-45-825-6250 Fax : +81-45-825-6396  
 Email : webinfo@graphtec.co.jp

Website <http://www.graphteccorp.com>

