The Flagship Model of Graphtec Grit-rolling Cutter

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

Product Introduction

FC8000 series *-60 / -75 / -100 / -130 / -160*

Graphtec America
August,2008

Line-up   - Grit-rolling Cutter FC8000 series –

Featuring the new line of FC 8000 cutters providing the highest performance, functionality, and user-friendly operation.

FC8000-60	**FC8000-75**	**FC8000-100**	**FC8000-130**	**FC8000-160**
24 inch	*30 inch*	*42 inch*	*54 inch*	*64inch*
$2995.00	*$3995.00*	*$4995.00*	*$5995.00*	*$6995.00*

Some of the new features include:

New — Dual pen holder
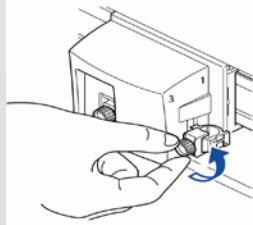
New — 1 TOOL 2 ARMS 3 AREA 4 MEDIA / I/F ADV. TEST — Icon Menu Screen — **Large 3 " LCD Control Panel**

New — **Cutting Plotter Controller software**

New — **Center push-rollers 3 pressure settings**

New — Ethernet Interface — Option

FC8000 Comparison Chart - Basic specifications -

Yellow is Graphtec advantage

	GRAPHTEC FC8000			SUMMA S-Class D-Series			MIMAKI CG-***FX			ROLAND GX-***		
	Max Cut Size	Max Media Size	List Price	Max Cut Size	Max Media Size	List Price	Max Cut Size	Max Media Size	List Price	Max Cut Size	Max Media Size	List Price
Cut size Media size Price USD	24.0"	30.3"	$2,995									
	30.0"	36.2"	$3,995	29.2"	33.0"	$4,499	29.9"	34.2"	$3,995	29"	36"	$3,295
	42.0"	48.2"	$4,995	47.2"	51.0"	$6,999				39.3"	46.4"	$4,295
	54.0"	60.2"	$5,995	53.1"	57.0"	$7,999	51.2"	56.1"	$6,495	47.0"	54.0"	$5,295
	64.0"	72.5"	$6,995	62.2"	66.0"	$8,999	63.0"	67.7"	$7,995			
Max. speed	58.46 in/s			55.6 in/s			55.12 in/s			33.46 in/s (all directions)		
Acceleration	4G			4G								
Cut pressure	600gf			400gf			400gf			350gf		

FC8000 Comparison Chart - Other specifications -

	GRAPHTEC FC8000	SUMMA S-series	MIMAKI CG-***FX	ROLAND GX-***
	Max. performance with easy operation	OPOS X Altera 64bit processor	Sequential mark read Illustrator plug-in	High reliability 3 years guarantee
Control panel	3" graphic LCD (with back light)	LCD touch panel	16 letters x 1 line LCD	16 letters x 1 line LCD
Application software	-	*Commercial software is sold separately	-	Cut Studio
Plug-in software	Cutting Master2 for Adobe Illustrator for Corel DRAW	WinPlot	FineCut6	Cut Studio plug-in
Guaranteed tracking	50 ft. (15m)	40ft. (12.2m) (30" or less media width)	30ft. (10m)	26ft. (8m) (600mm or less media width) 13ft. (4 m) (600mm over media width)

Target market   - Grit-rolling Cutter FC8000 series –

Expanding into new markets by constantly innovating our products

Vehicle market

Vehicle Graphics
Window tint film
Paint Protection film

Screen Printing

Decals
Masking Film
Print & Cut Application
Heat Transfer for
T-shirts and Sportswear

Sign & Graphics

Vinyl Sign
Banner
Print & Cut Application
Traffic Sign with
High-intensity reflective film

Other market

Counter top
Monument with
Sandblast resist rubber

Garment market

Pattern making
Marker plotting
Embroidery with pouncing

Product Planning Dep

The leading performance in the world

New all-in-one cutter head for supporting additional applications and higher productivity and reliability.The FC8000 series plotters boast the world's highest cutting plotter performance.

1. **600gf maximum cutting force**
   Highest cutting force in its class for cutting a wider variety of materials.

2. **58.46 inches/s maximum cutting speed**
   Fastest cutting speed in its class for the highest productivity.

3. **Reliable long-length tracking capability**
   Stronger internal structure for improved media handling. The optional flange set, new designed media basket, and 3 step push roller provides more control on long length cutting for guaranteed 50 feet tracking.
   * When using Graphtec specified conditions

Product Planning Dep

New Features - Grit-rolling Cutter FC8000 series –

User-friendly design for simpler operation

New Dual Configuration *(2 users settings)*

Improved Cut condition setting *(8 conditions each for 2 users)*

New 3inches LCD incorporated main unit operation panel

Improved Cutting Plotter Controller *(software controls functions for the FC8000)*

New GP-GL/HP-GL auto sensing feature *(CM2 version 1.40 or later supports this).*

New Step size synchronized feature *(CM2 version 1.40 or later supports this).*

Features for higher productivity and expanded applications

New **Perforation cutting without damaging the blade or cutting strip**

Improved 3 pressure settings on the push rollers.

New Auto RMS sensitivity control function

Product Planning Dep

New Features: Cut condition setting

No.	Condition Setting Items	FC7000	FC8000
1	Tool and Offset	Yes	Yes
2	Cutting Force	Yes	Yes
3	Speed	Yes	Yes
4	Acceleration (Quality)	Yes	Yes
5	Tool Up Height	N/A	Yes
6	Cut Line Pattern	N/A	Yes
7	Assign tool	N/A	Yes
8	Tangential Emulation	N/A	Yes
9	Distance Adjust	N/A	Yes

Product Planning Dep

New Feature:　Dual Configuration

Two different users can set and save independent settings for customized jobs on a single FC8000 machine.

Features of Dual Configuration

- ☐ User 1 and 2 selection can be changed in the control panel.
- ☐ User name assigned in PC is displayed as the user name.
- ☐ USER PRIORITY can be set as the Key or PC.

```
1:User No.1
SELECT USER
1 User No.1
2 User No.2
◀ PREVIOUS
▣ SET      ◀▮ CANCEL
```

```
1:User No.1
   KEYPAD/BY PC

1 SELECT USER
2 USER PRIORITY
▣ SET      ◀▮ CANCEL
```

See below uses:

One cutter can be used by 2 users	Using multiple types of Media	Using two different software packages with different command languages
Each user can choose and edit their individual setting without effecting the other users settings.	Quickly change customized settings for each type of media.	Instantly change customized settings for different software packages.

1　　　　2

Vinyl　　Sandblast rubber

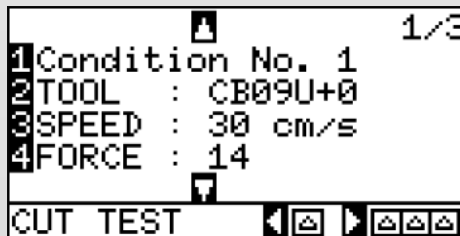Illustrator　　CAD

New Feature: 3 inch LCD incorporated

3 inch LCD display with an interactive operation panel.

New Operation Panel
- ☐ Interactive Menu Screen
- ☐ Icon Menu Screen
- ☐ Direct Cross Cut Key
- ☐ Direct Fast Key for Positioning the head


Icon Menu Screen

Interactive Menu Screen

3 inches LCD display

New Feature :   Cutting Plotter Controller

Cutting Plotter Controller allows you to control the cutter remotely via PC. The ability to control various plotter settings from a PC dramatically improves work and operating efficiency. New Cutting Plotter Controller Software provides more advanced functions and easy operation.
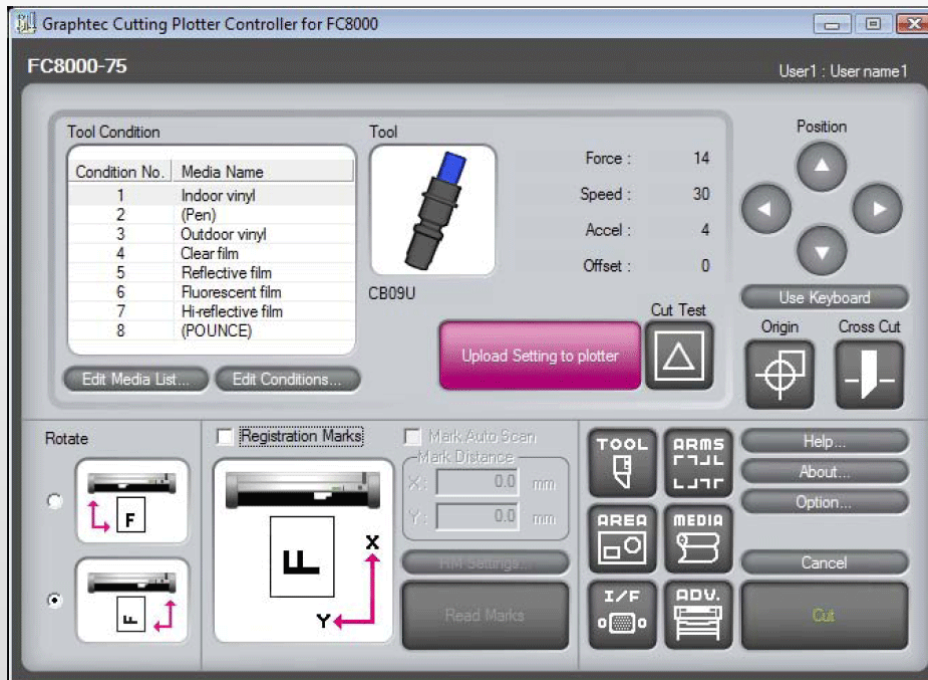
Cutting Plotter Controller Software Main Menu

Easy setting from PC

By using the controller software, the plotter settings and operation can be controlled from the PC.

Saving of tool condition

The tool condition which is set by controller, can have maximum of to100 labels, which can be saved or read as a PC file.

Reading of plotter settings / transmitting settings to plotter

Tool conditions (condition No.1-8) set by plotter operation panel are readable within the controller. Condition settings are editable and can be reset from the plotter controller software.

Display plotter settings

Plotter error information and condition information and can be saved for diagnostic purposes.

Import・export of detailed settings

Settings can be saved in the PC for back up.

New Feature: GP-GL/HP-GL auto detection

Detects incoming data as GP-GL or HP-GL, and automatically change the command setting .

HP-GL

Command
Auto detection

GP-GL

Command
Auto detection

New Feature: Step size synchronized function

Data output is automatically adjusted to the appropriate step size.

Cutting Master Software needed to support this function (CM2 version 1.40 or later supports this).

GP-GL
0.01

Step size
synchronized

GP-GL
0.025

Step size
synchronized

New Feature: Now 3 types of interfaces

The FC8000 series has USB2.0, RS-232C and *Ethernet (Option),* interface.
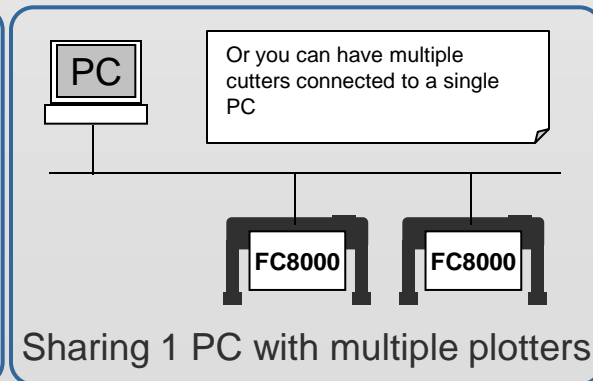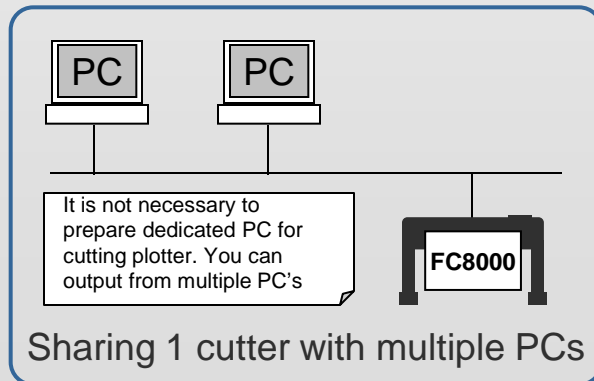
■USB2.0 :
   Standard USB cable for both Mac and PC

■RS-232C :
   Standard RS-232C interface.

■Ethernet (Option) :

New

   PC standard network interface. Multiple plotters can be used by one PC by network connection. It is possible to use a longer cable (than USB or Serial) with this interface.

PC	PC

It is not necessary to prepare dedicated PC for cutting plotter. You can output from multiple PC's

FC8000

Sharing 1 cutter with multiple PCs

PC

Or you can have multiple cutters connected to a single PC

FC8000   FC8000

Sharing 1 PC with multiple plotters

PC	PC

Or multiple PC's and multiple cutters

FC8000   FC8000

Sharing multiple PCs by multiple plotters
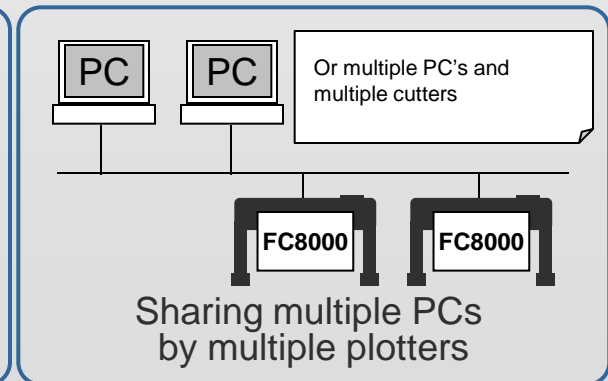
New Feature: Die cutting using perforation

Decals and patterns can be cut with perforated lines so the cut parts will not fall off.

Now available the FC8000 has **two pen holder** positions (tool 1 and tool 3). **Tool 1** provides standard vinyl cutting and **Tool 3** provides perforation cutting. By using **Tool Holder 3,** which is positioned over a channel, prevents the blade and cutting strip from being damage when perforation cutting.
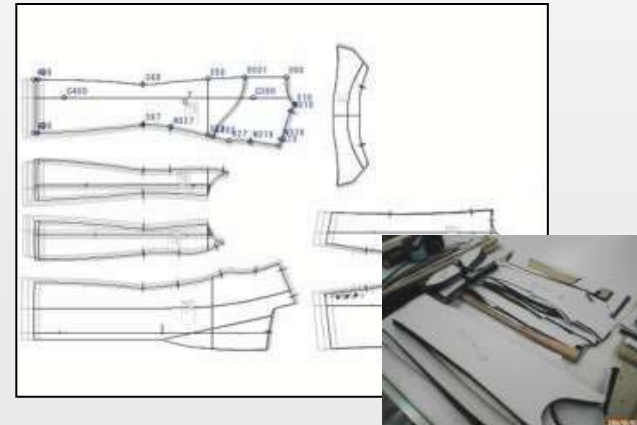
Print and cut decals

By using the perforation cut feature, time is saved making it easy to separate decals from the vinyl.

Pattern making for Garment

Perforating cut feature can be used to make paper patterns. The FC8000 enhanced tracking allows for long plots.

* Please use "tool number setting" as tool 3 in cut condition setting.

New Feature: 3 step push roller pressure settings

Push roller pressure is selectable, 3 pressure settings.

Set the pressure to match the media.

The FC7000Mk2 push roller pressure had 2 settings: *"strong or Low"*.
FC8000 push roller pressure setting has 3 steps: *"strong, middle, and Low"*.
The *"Low"* setting on the FC8000 can help keep media from floating up, it is applicable when cutting media can not be left with a push roller impression (example car window tint film).

Hold down force
Low

Hold down force
Medium

Hold down force
Strong
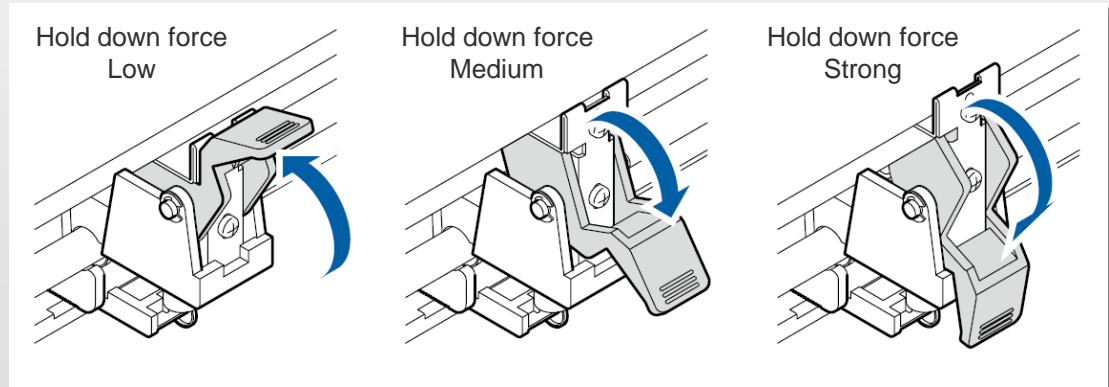
Note 1: Both end (outside) push rollers only have strong and medium settings.
Note 2: Outside used push rollers must have the same setting to avoid skewing.
Note 3: We no longer have pinch rollers, we only have Push Rollers.

New Feature: ARMS sensitivity adjustment

Advanced Registration Mark Sensing System

ARMS4.0 is the 4th generation auto registration mark sensing system for improved registration detection.
Productivity of P&C is dramatically improved.

Auto mark sensor sensitivity adjustment   **New**
Mark sensor sensitivity is automatically adjusted, giving you more varieties of Print and Cut compatible media. *(see more information on the next page)*

4 point axis alignment
4 point registration marks for accurate alignment and scaling in both X and Y axis.

Segment area compensation
Reading the position of the middle registration marks for additional precision in alignment of long – length jobs.

Multiple mark compensation
Reading marks on multiple designs sequentially for higher productivity

Auto-detection of mark position   **Patent Pending**
1st mark automatically detected without operator intervention.

Software control *Cutting Master2, Cutting Plotter Controller Software*
Controls the ARMS from the software for easy-to-use operation.

New Function: ARMS sensitivity adjustment

Auto adjustment of ARMS sensitivity, expands the variety of ARMS readable medias.

The FC8000 now reads any contrasting color registration marks

Advantage

☐ Single spot color Blue used on the white paper

It is not necessary to print black registration marks, you can utilize the color of your print. This will be helpful to those contour cutting heat transfer material.

Only Blue Print

☐ Spot White printing on blue media

Outline of patterns which are printed by white ink on blue media can be cut. It is applicable to inkjet printers which are capable of white ink printing on dark material.

White Ink Print

User-friendly design

Functions for higher cutting quality

❑ **Dedicated stand is provided**

A dedicated stand with media stock rollers is provided as a standard accessory. It insures long media runs. In addition, the media basket helps with long length cutting.

❑ **Tangential Emulation**

Controls the angle of the blade tip for more accurate thick material cutting.

Functions for higher productivity

❑ **Sorting function**

Internal optimization of vector analysis to minimize

media and head movement for faster thru-put time.

User-friendly design

User-friendly design for simple operation

▢ Automatic Cross Cutter

Automatic Cross Cutter provides a simple solution for obtaining a straight sheet cut-off of your finished job. Moreover, Direct "CROSS CUT" key provides user friendly operation.

Automatic Cross Cutter

▢ Light Pointer for Manual position adjust

Light pointer is used for manually detecting registration marks. It also works to trace cut images for proofing.

▢ Bi-directional media loading

For convenience and versatility.
Users have the capability to load media from either the front or back of the FC8000.
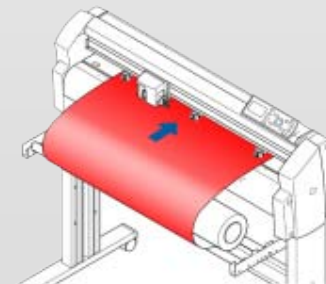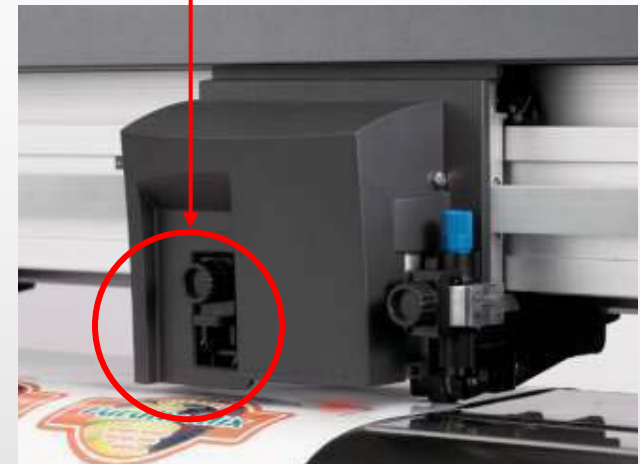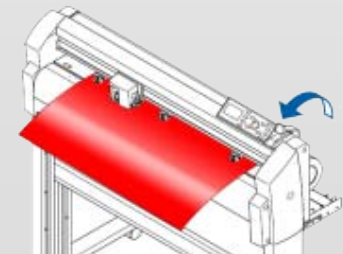
Front loading   Rear loading

Variety of Cutter tools

Cutter Plungers
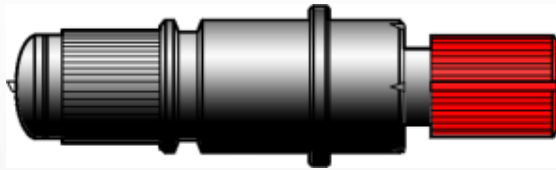
PHP32-CB15N-HS
For the 1.5mm diameter super steel blade
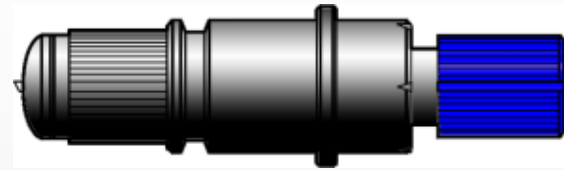
PHP32-CB09N-HS
For the 0.9mm diameter super steel blade

Cutter Plungers

Blade model	Diameter	Photo	Spec
CB09UA	0.9mm		Standard blade for cutting vinyl. Suitable for cutting media up to 0.25 mm thick.
CB15U	1.5mm		For cutting thicker media. Suitable for cutting media from 0.25mm to 0.5 mm thick.
CB15UA	1.5mm		For cutting high intensity reflective media.
CB15UB	1.5mm		For cutting small characters on mono vinyl chloride media. Suitable for cutting small size characters that are less than 10 mm.
CB15U-K30	1.5mm		For thick media. The sharply angled point provides a longer cutting edge. Suitable for cutting material from 0.5 mm to 1.5 mm thick.
CB15U-K20-SP	1.5mm		For cutting sandblast rubber. *When using with the plunger PHP32-CB15N-HS, please remove the spring from the blade before insert it to the plunger.

Cutting Master 2 software

Cutting Master 2, interfaces with Corel Draw and Adobe Illustrator as a plug-in driver.

Compatible software

Adobe Illustrator

- for Windows   8, 9, 10, CS, CS2, CS3
- OS version   Windows 98SE, ME, 2000, XP, Vista

- for Macintosh   10, CS, CS2, CS3
- OS version   OSX 10.2 or later

ProductionMANAGER

Cutting Master 2 1.50

Corel Draw

- for Windows   10, 11, 12, X3, X4
- OS version   Windows 98SE, ME, 2000, XP, Vista

Product Planning Dep

Cutting Master 2 plotter control

Plotter control function

Preview
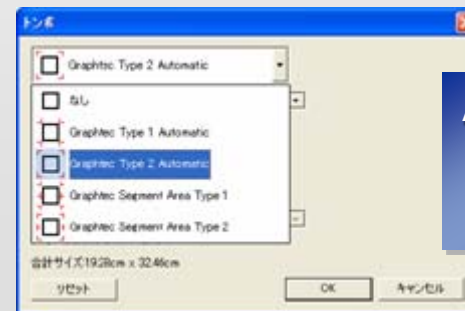
- ☐ Direct output from software

- ☐ Output by color/layer

- ☐ Preview window for check actual cutting

- ☐ Control of cutting condition such as cut and speed

- ☐ 3 types of cut line can be edited

- ☐ Amount of over cut can be specified

- ☐ Weeding line can be added

- ☐ Additional ARMS function

- ☐ Automatic ARMS control by command

Large preview window
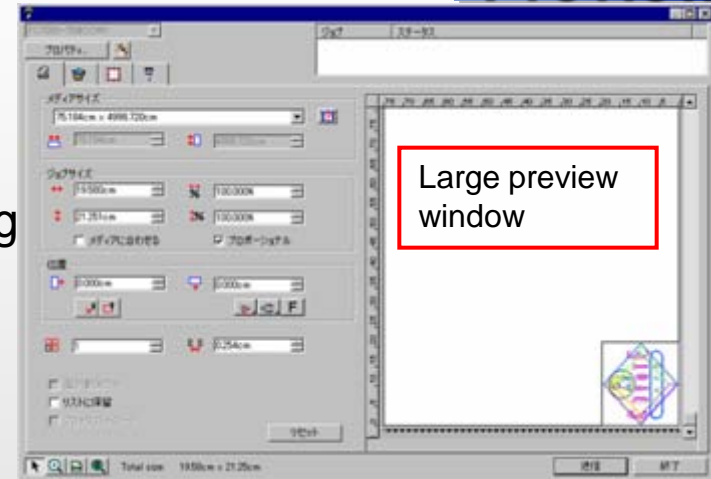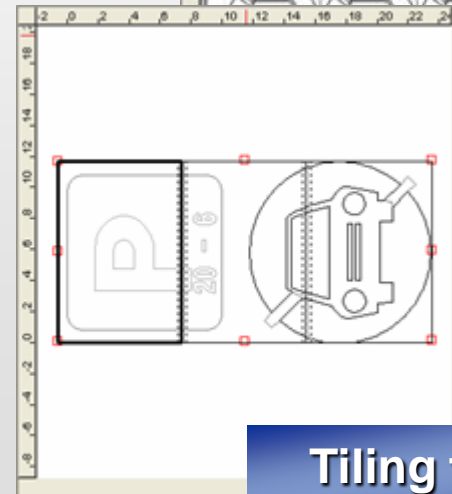
Additional ARMS function

Cutting Master 2 editing

Edit function

- Center, Rotate, Mirror for easy layout

- Matrix copy for higher productivity

- Calculation formula can be inputted directly

- Specified width of outline can be detected

- Auto-welding for binding same

  color of shapes

- Tiling / Paneling for segmentation

  of cutting

Matrix copy

Tiling function

Packaging Specifications

FC8000 Package specification					
Model	Package Size (mm)			MAX number of stack	Packing Weight
	L	W	H		(k g)
FC8000 -60	52.28"	17.80"	24.06"	4	83.78
FC8000 -75	58.19"	17.80"	24.06"	4	92.59
FC8000-100	70.00"	17.80"	24.06"	4	110.23
FC8000-130	81.81"	17.80"	24.06"	4	127.87
FC8000-160	92.05"	17.80"	24.06"	4	138.89

FC8000 Stand Package specification					
	Package Size (mm)			MAX number of stack	Packing Weight
	L	W	H		(k g)
ST0083	34.65	10.24	8.86	6	22.05

Product Planning Dep

Cutting plotter Main units

Model	Size	Part Number
FC8000-60	24 inches	4526622323168
FC8000-75	30 inches	4526622323175
FC8000-100	42 inches	4526622323182
FC8000-130	54 inches	4526622323199
FC8000-160	64 inches	4526622323205

Options

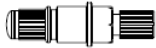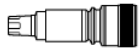| Model	Specifications	Part Number
RSK0020	Multi-media stocker for FC8000-60	4526622323588
RSK0021	Multi-media stocker for FC8000-75	4526622323595
RSK0022	Multi-media stocker for FC8000-100	4526622323601
RSK0023	Multi-media stocker for FC8000-130	4526622323618
RSK0024	Multi-media stocker for FC8000-160	4526622323625
PHP61-LOUPE	Loupe	4526622020685
PPA33-TP12	Pouncing pen φ1.2mm	4526622037270
CB0023C-HS	RS-232C cable (IBM compatible model 3m)	4526622042045
ECK0009	2 pen type (dealer option)	4526622323861
OPH-A21	Flange for FC8000	4526622323632
OPH-A22	Push roller assembly for FC8000	4526622323649
OPH-A23	network interface (dealer option)	4526622323847

Standard accessories

AC power cord
1

USB cable (3-meter length)
1

User Guide CD-ROM
1
- User's Manual (pdf)
- Windows driver/Macintosh plug-in software
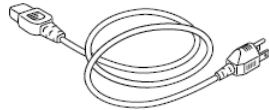
Cutter holder (PHP32-CB09N)
1

Cutter blades (CB09UA-1)
1

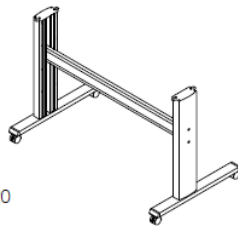**Water-based fibertip pen**
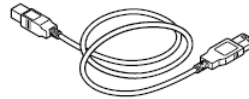1

Setup Manual, TO ENSURE SAFE AND CORRECT USE
1 of each

Stand
1
- Base assembly x 2
- Stand side bar x 2
- Center bar x 1
- Socket head cap screws (M5) x 20
- Allen wrench (for M5) x 1

Media bracket
1
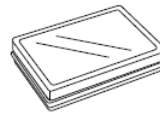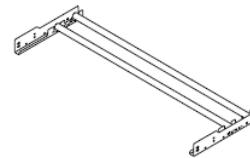- Media stocker x 2
- Stock roller x 2
- M4 binding head screws x 4
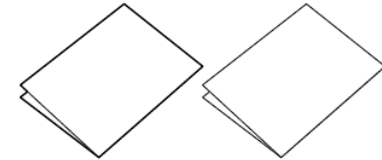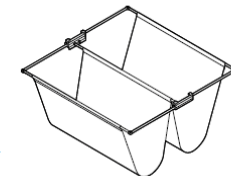
Cloth basket
1
- Cloth basket
- Mounts x 2
- Basket tubes (short) x 4
- Basket tubes (long) x 3
- Socket head cap screws (M5) x 4
- Joints x 4

Description of the CD-ROM

Item	Description	Qty	Remark
Manual (CD-ROM)	FC8000 – CDM01M	1	
Cutting Master 2	For Illustrator / For Corel DROW (for Windows)	1	
Cutting Master 2	For Illustrator (for MAC)	1	
Windows driver	OPS662	1 set	
PC controller	OPS640	1 set	

Supply items

Item	Model	Specification
Cutter blade	CB09UA-5	Super steel with spring
	CB15U-5	Super steel
	CB15U-5SP	Super steel with spring
	CB15U-K30-5	Super steel
	CB15U-K30-5SP	Super steel with spring
	CB15UA-K30-2	Super steel, for high intensity reflective film
	CB15UB-2	for small letter cutting
	CB15U-K20-2SP	for sand-blast rubber sheet
Cutter plunger	PHP32-CB09N-HS	0.9mm cutter plunger
	PHP32-CB15N-HS	1.5mm cutter plunger
	PHP31-CB09-HS	0.9mm cutter plunger
	PHP31-CB15-HS	1.5mm cutter plunger
	PHP31-CB15B-HS	1.5mm cutter with spring plunger
Water-based fiber-tip pen	KF550-S1	Black x 2, Red, Blue, Green x 1
	KF551-RD	Red x 5
	KF552-BK	Black x 5
	KF555-BL	Blue x 5
	KF556-GR	Green x 5
Disposable ink pen	SD502-BK	Black 0.2mm x 4
	SD503-BK	Black 0.3mm x 4
	SD505-BK	Black 0.5mm x 4
Disposable ink pen plunger	PHP 3 4-INK	With ink tank
Oil-based ballpoint pen	KB140-S1	1 Black x 2, Red, Blue, Green x 1
	KB141-RD	Red x 5
	KB142-BK	Black x 5
	KB145-BL	Blue x 5
	KB146-GR	Green x 5
Oil-based ballpoint pen plunger	PHP31-BALL	2 plungers
Cross-Cutter blade	CT01H	High Speed Steel
	CT02U	Super steel