

Product Introduction

Cutting Plotter CE5000-60/-120

Craft ROBO Pro CE5000-40-CRP

August 2006

**Graphtec Corporation
Overseas Sales and Marketing Div.**

Product concept

Standard Grit-cutter model with reliable cutting performance, fulfilled function and high cost-performance

Standard Grit-cutter Model in all over the world

Reliable
cutting
performance

Fulfilled
functions

Easy-to-use

High Cost
Performance



48 inch

CE5000-120



24 inch

CE5000-60



15 inch

CE5000-40-CRP

CE5000series target markets

Sign & Graphics

Vinyl Sign
Banner
Print & Cut Application
Vehicle Graphics

Screen Printing

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

Main features of CE5000 series

Line-up of 3 products with superior basic specifications and variety of functions

1. Reliable Cutting performance

Superior cutting speed, force and long-length cutting provide stable cutting quality and productivity at Vinyl cutting and Printing market.

2. Enhanced ARMS function

Enhanced ARMS function for improvement of Print&Cut productivity. New axis alignment function is added for precise axis alignment.

3. Fulfilled functions and user-friendly design

Fulfilled functions and accessories are provided for improvement of cutting quality and productivity.

4. Variety of software Cutting Master2, Plotter Controller, ROBO Master

New Plug-in Driver “Cutting Master2”

“Plotter Controller” for control of plotter from PC

“ROBO Master Pro” for easy-to-use cutting software

Reliable Cutting performance

Superior cutting speed, force and long-length cutting provide stable cutting quality and productivity at Vinyl cutting and Printing market.

1. Cutting Speed 40-CRP/ 60 : 600mm/s, 120 : 1000mm/s

High speed cutting with stable quality realizes high productivity

2. Cutting Force 40-CRP/ 60 : 300gf, 120 : 450gf

Stable cutting quality expands the range of choice of the materials that can be cut

3. Stable long length cut, a 5m cutting is guaranteed (*1,*2)

Stabled long-length cutting is realized by the grit-rolling technology that has been acquired over the years

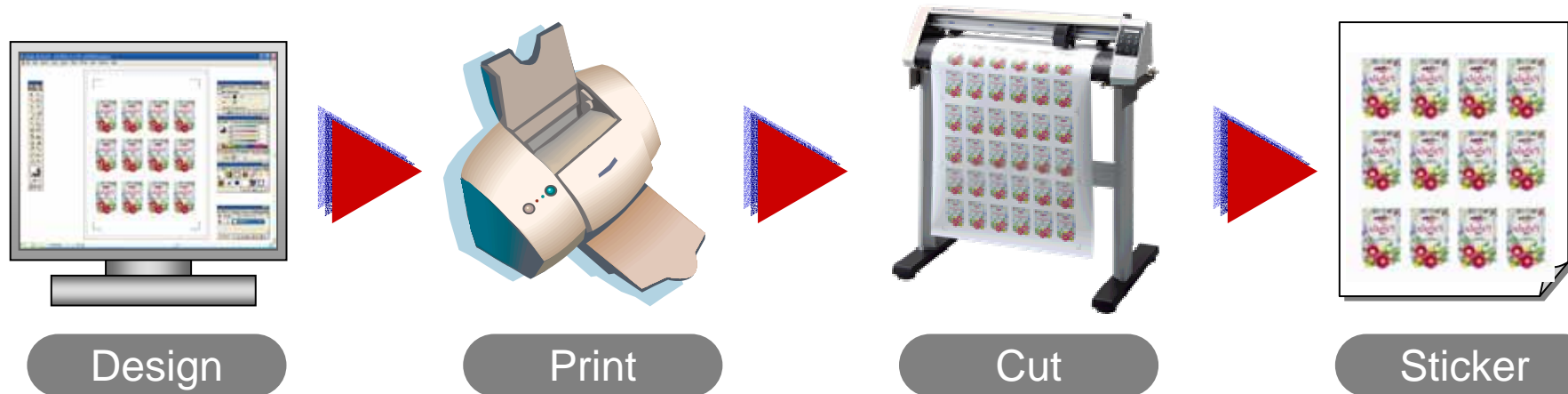
*1: with Graphtec specified conditions

*2: CE5000-40-CRP : 2m

Print & Cut using the RMS function

Advanced Registration Mark Sensing System

CE5000 enables to make stickers easily using the ARMS function. The ARMS function makes the Print&Cut easier, more precisely and it realizes higher productivity.



Create the registration marks on the design software using Cutting Master2. Also Print&Cut design can be edited easily.

Print out the design and registration marks using the color printer.

CE5000 reads the registration marks and adjust the position.

The high quality sticker can be made by accurate registration mark position reading

Fulfilled ARMS function

Advanced Registration Mark Sensing System

Fulfilled ARMS functions that enable productivity of Print & Cut job are installed. More precise registration mark reading is realized by following new functions.



4 points axis alignment

Reading 4 point registration marks for alignment of both X and Y axis.



Segment area compensation **New**

Reading middle position of marks in media feed direction for more precise alignment when long-length cutting job.



Multiple mark compensation

Reading marks on multiple designs sequentially for higher productivity



Auto-detection of mark position **Patent Pending**

1st mark position is automatically detected without key operation.





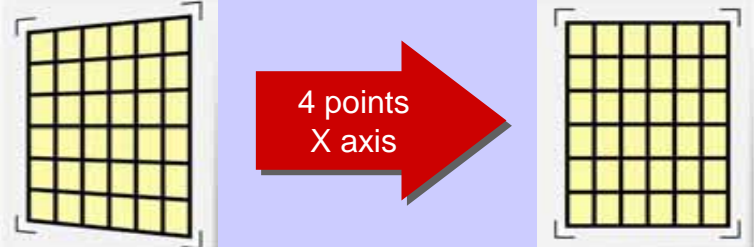


Software control *Cutting Master2, Plotter Controller, ROBO Master Pro*

Controlling the ARMS from software for easy-to-use operation.

4

4 points axis alignment

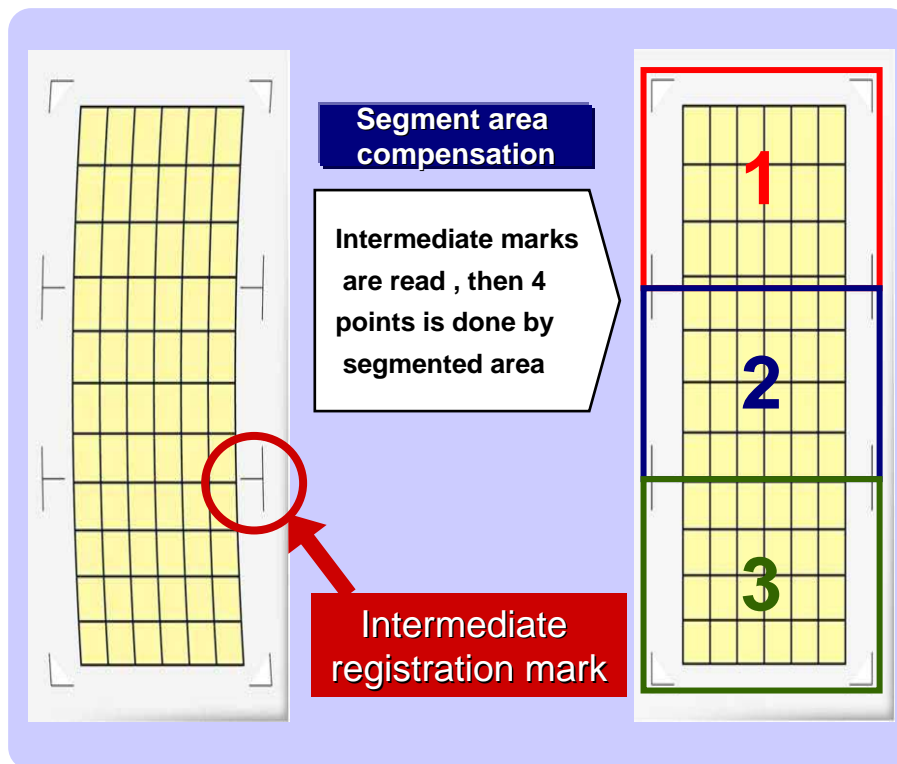
Reading 4 point registration marks for alignment of both X and Y axis.
4 point axis alignment enables to align Print & Cut more precisely.

<ul style="list-style-type: none"> Compensates slope of axis 	 <p>Roland GX24</p>	 <p>3 points</p>
<ul style="list-style-type: none"> Compensates slope of axis Compensates deviation of X axis 	<p>Mimaki CG75FX</p>	 <p>4 points X axis</p>
<p>Compensation of</p> <ul style="list-style-type: none"> Slope of axis Deviation of X axis Deviation of Y axis 	 <p>CE5000 series</p>	 <p>4 points X/Y axis</p>



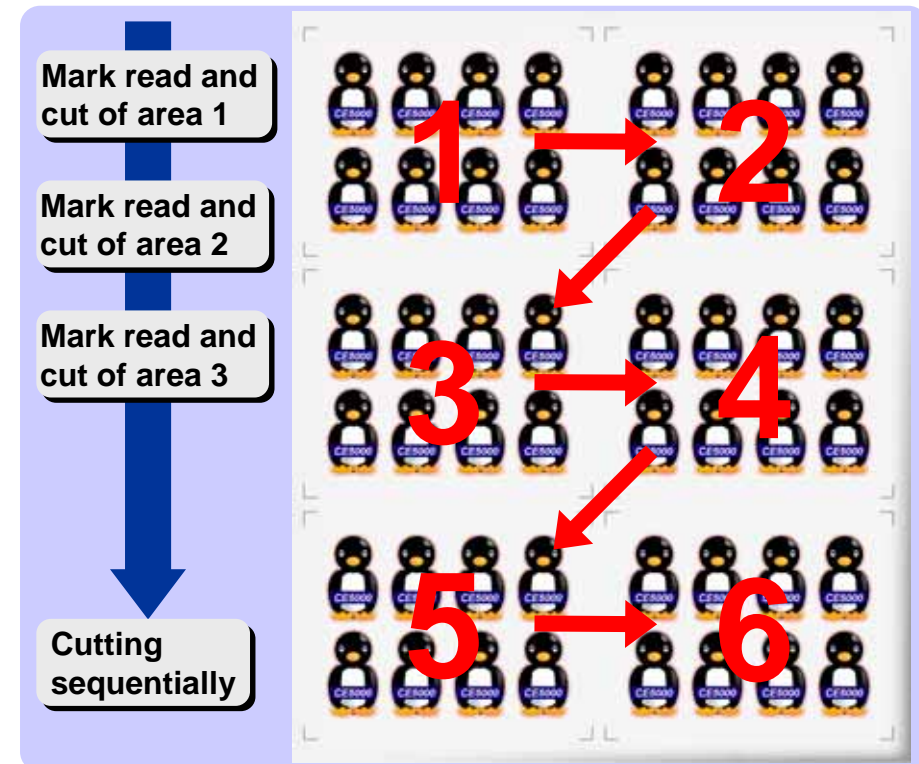
Segment area compensation

The intermediate registration Marks in feeding direction is read, then the axis is aligned by area. This process makes higher precision for Print & Cut in long length cutting.



Multiple mark compensation

The registration marks that are on the arrayed identical patterns are read then cut with the multiple mark compensation function. It improves the productivity very much.





Auto-detection of mark position

The 1st registration mark is detected automatically. No need to move the mark sensor position manually. The mark reading is retried if the reading error is occurred at 2nd or later marks. It improves the operability of Print & Cut.

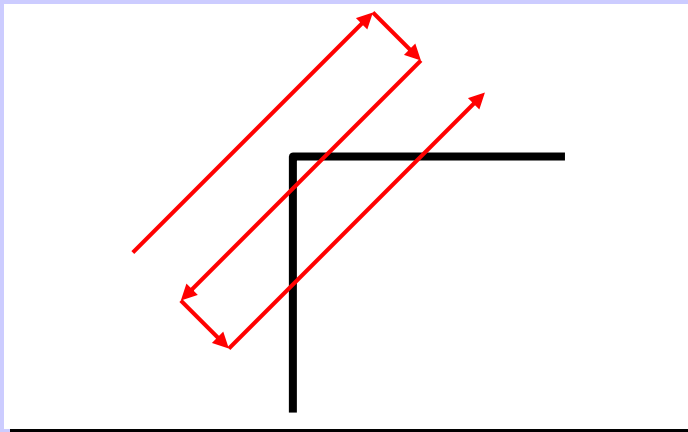


Software Control

The registration mark sensor control commands are provided for ARMS function. It realizes to control the mark reading from the software.

- ▣ Cutting Master2
- ▣ Plotter Controller
- ▣ ROBO Master Pro

Movement of mark read sensor



RMS Function		Graphtec	Roland	Mimaki	Summa
		CE5000	GX-24	CG60st	Summa Cut SE
4 points compensation	X axis	Yes	3 points	No	Yes
	Y axis	Yes			Yes
Segment area compensation		Yes	No	No	Yes
Multiple mark compensation		Yes	No	No	No
Auto-detection		Yes	No	No	No
Software control		Yes	No	No	Yes

Fulfilled functions and user-friendly design

Functions for higher cutting quality

▣ Dedicated stand is provided

A dedicated stand with roll media stocker is provided as a standard accessory.

It realizes stable media feeding. In addition, dedicated basket (option) is provided for stable long length cutting.

▣ TANGENTIAL mode

The blade tip direction is controlled for cutting of sharp corner. Suitable for cutting of 0.3mm or thicker media.



Functions for higher productivity

▣ Sorting function

A sorting function that sorts the cutting order is provided for minimize of the media feeding. It makes shorter cutting time, and improves the productivity.

The Cutting Master 2 provides the sorting function from the PC.

Fulfilled functions and user-friendly design

User-friendly design for simpler operability

8 patterns of setting conditions are stored

8 patterns of setting conditions can be registered.

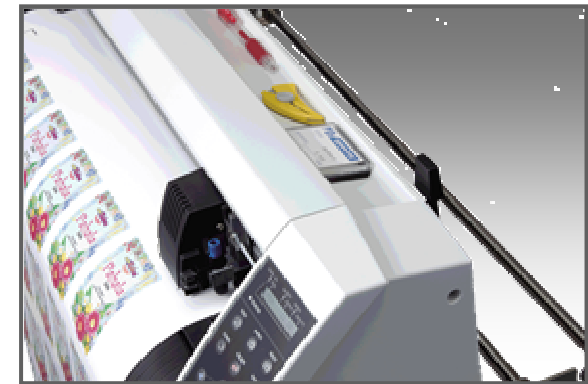
The best cutting condition for each type of media can be selected.

Operation buttons with icon

An LCD display with interactive operation and operation buttons with icon enables easy-to-use key operation.




Tool tray

Tool tray for small objects such as the cutter plungers and the cutter blades.



Cutter Blades

3 types of blades are provided for various usage

Blade model	Photo	Spec
CB09UA-5		Super steel with spring 0.9 mm 5 pieces for media thickness of 0.25mm or less
CB15U-5		Super steel 1.5 mm 5 pieces for media thickness of 0.25 to 0.5mm
CB15UB-2		For cutting of small characters 1.5 mm 2 pieces thickness of 0.25mm or less

Cutter Plungers



PHP32-CB15N-HS

For the 1.5mm diameter super steel blade



PHP32-CB09N-HS

For the 0.9mm diameter super steel blade

Variety of software

CE5000 series provides 4 software as standard accessory.
Cutting Master 2 supports 11 local languages.

1. **Cutting Master 2** Local Language 11

Plug-in Driver that enables to output from the graphic software.

- ▣ Adobe® Illustrator Plug-in Driver for Windows and Mac
- ▣ Corel DRAW Plug-in Driver for Windows

2. **Plotter Controller** Local Language 7

The control software that enables to control the CE5000 directly from PC.

Various control such as cutting speed, cutting force, cutter move and ARMS.

3. **ROBO Master Pro**

Simple sign software that can be used soon after installation of CE5000.

Editing and cutting of letters and patterns. Supporting the Print & Cut.

4. **Windows Driver**

Supported local languages

Cutting Master 2 supports 11 local languages

Plotter Controller supports 7 local languages

Language	Cutting Master 2	Plotter Controller	ROBO Master	Windows Driver
English	Yes	Yes	Yes	Yes
French	Yes	Yes	N/A	N/A
German	Yes	Yes	N/A	N/A
Italian	Yes	N/A	N/A	N/A
Spanish	Yes	Yes	N/A	N/A
Portuguese	Yes	N/A	N/A	N/A
Russian	Yes	Yes	N/A	N/A
Simplified Chinese	Yes	Yes	N/A	N/A
Traditional Chinese	Yes	N/A	N/A	N/A
Korean	Yes	N/A	N/A	N/A
Japanese	Yes	Yes	Yes	Yes

Cutting Master 2 *Plug-in Driver Illustrator and Corel Draw*

The Cutting Master 2 is a plug-in driver that enables to output the cutting data directly from the design software. You can use the cutting plotter effectively with the Cutting Master 2

Corresponding Software

Adobe Illustrator

- ▣ for Windows 8, 9, 10, CS, CS2
- ▣ OS version Windows 98SE,ME,2000,XP
- ▣ for Macintosh 10, CS, CS2
- ▣ OS version OSX 10.2 or later

Corel Draw

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

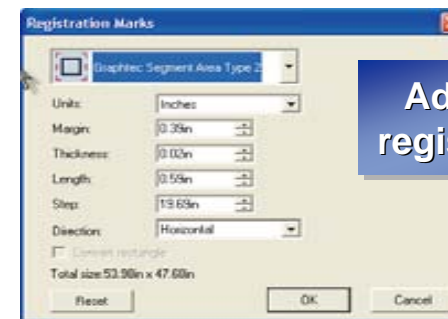
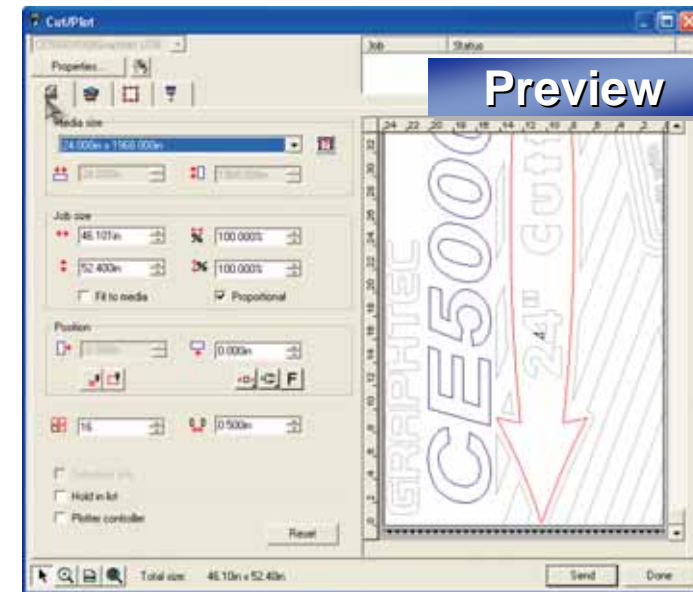


Cutting Master 2 1.00 Build Number 941

Cutting Master 2 Plug-in Driver Illustrator and Corel Draw

Plotter control function

- ❑ Direct output from the software
- ❑ Output by layer / color
- ❑ Possible to check the cutting lines by preview window
- ❑ Possible to control the speed and force
- ❑ 3 types of cut line can be edited
- ❑ Multiple over cutting is possible
- ❑ Weed border can be specified
- ❑ Additional feature for ARMS function
- ❑ ARMS can be controlled by software

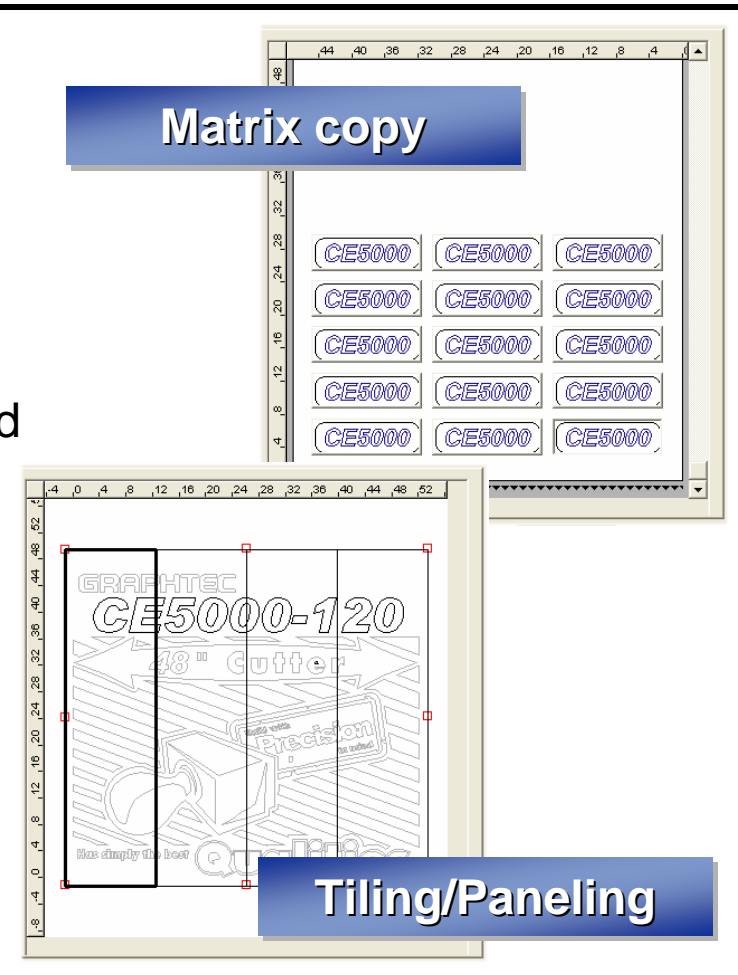


Addition of the registration marks

Cutting Master 2 Plug-in Driver Illustrator and Corel Draw

Edit function

- ❑ Centering, Rotate, Mirror for easy layout
- ❑ Matrix copy for higher productivity
- ❑ Calculation formula can be input directly
- ❑ Specified width of outline can be detected
- ❑ Auto-welding for binding same color of shapes
- ❑ Tiling / Paneling for segmentation of cutting

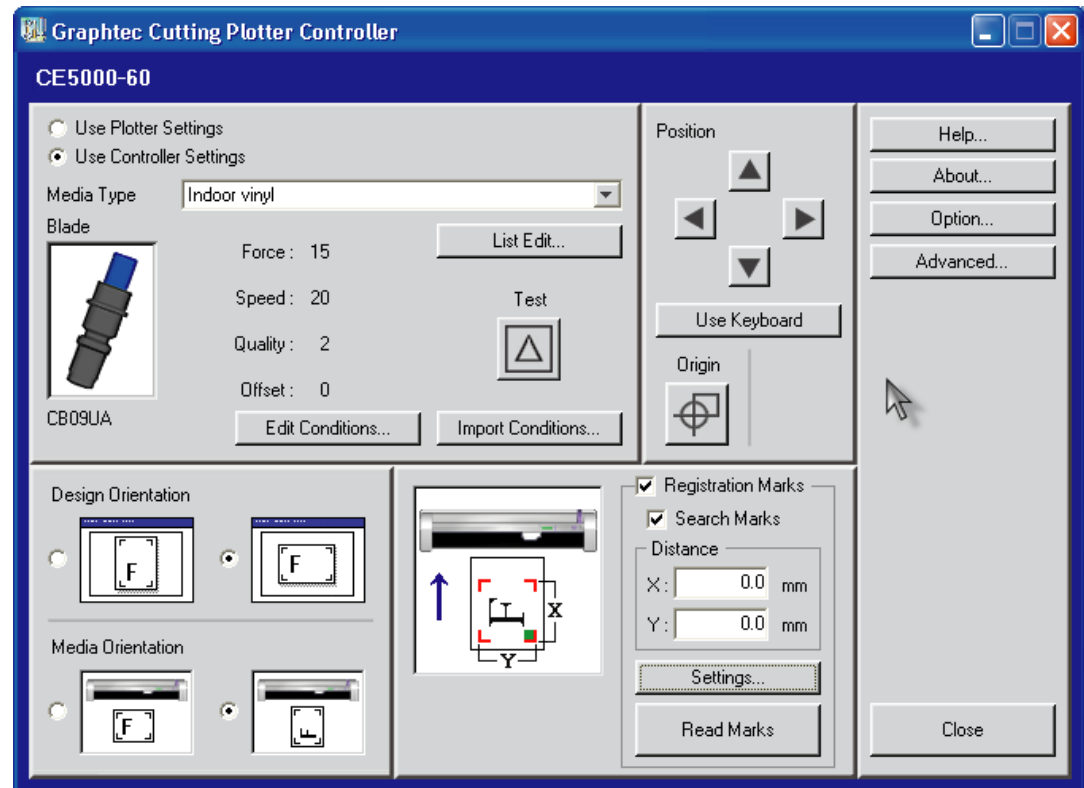


Plotter Controller

The Plotter controller controls the CE5000 directly from PC. It improves the operability and productivity drastically.

Main features

- Cutting conditions setting
 - Speed
 - Force
 - Line type, etc.
- Test cut
- Position move
- Rotation
- Origin point
- Key board control
- Registration mark setting
 - Auto-mark reading
 - Mark size, distance

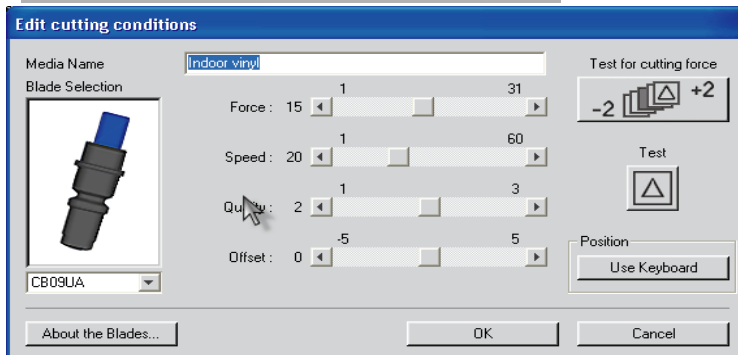


Plotter Controller

Cutting condition list control

Cutting conditions that matches with each media can be edited and controlled

Control of cutting conditions



Edit of Cutting Condition List

Media Name	Pen Type	Force	Speed	Quality	Offset
Clear film	CB09UA	17	20	2	0
Fluorescent film	CB09UA	20	10	1	0
Indoor vinyl	CB09UA	15	20	2	0
Outdoor vinyl	CB09UA	12	20	2	0
Reflective film	CB09UA	17	20	2	0

Key board short -cut

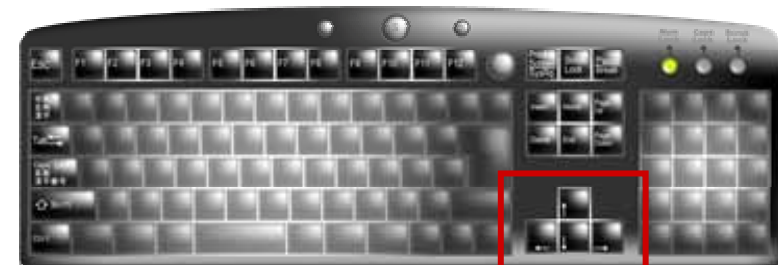
F5 Origin point

F6 Use key board

F7 Mark read

F8 Test cut

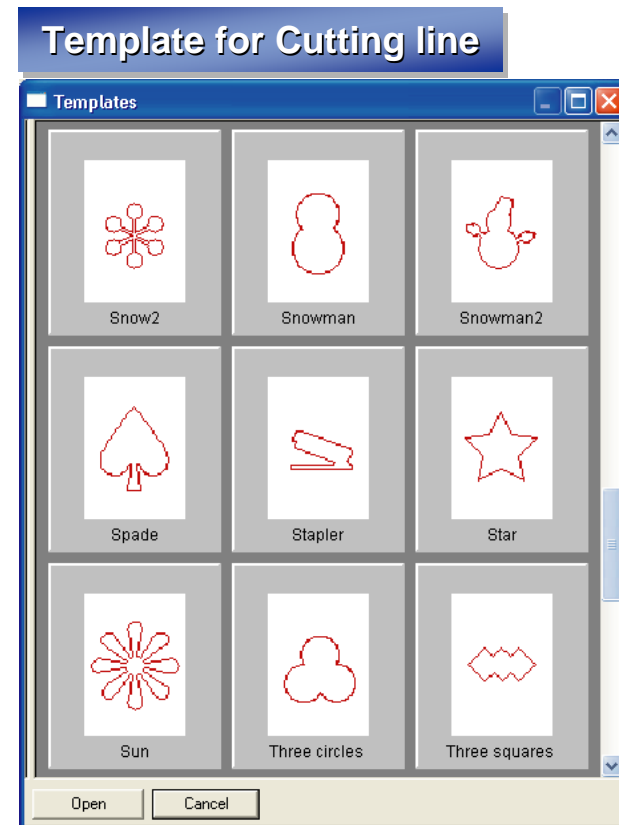
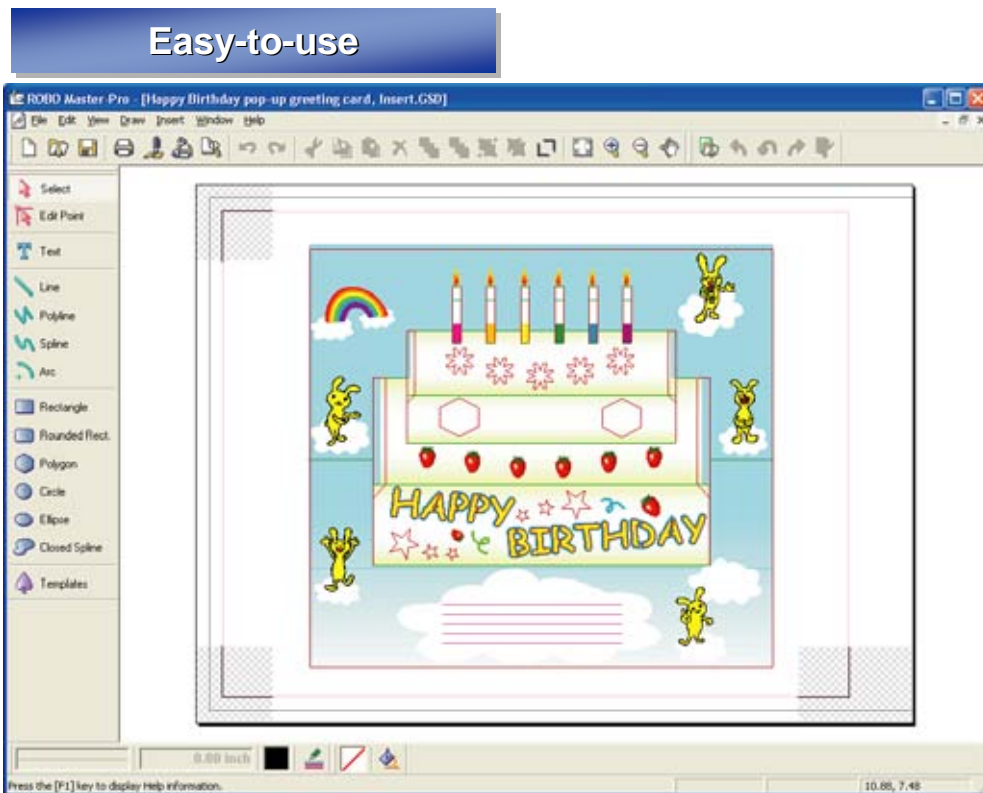
F9 Cut force test



Position move

ROBO Master Pro

Easy sign software “ROBO Master Pro” is attached as a standard accessory. It enables to use even for the beginners. Editing of characters and shapes and cutting of films easily. Corresponding to Print & Cut for making stickers.



CE5000 series specifications

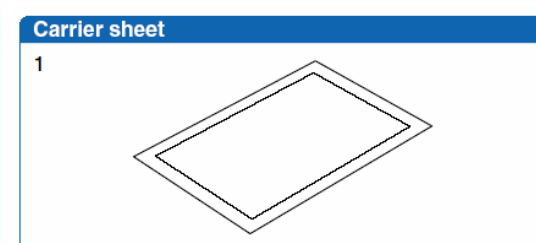
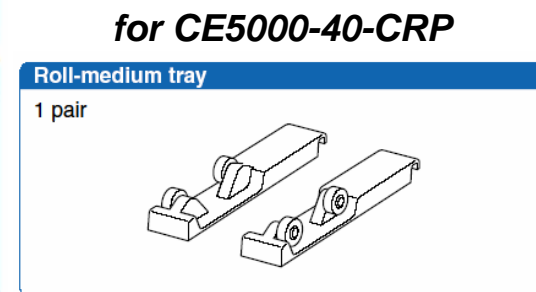
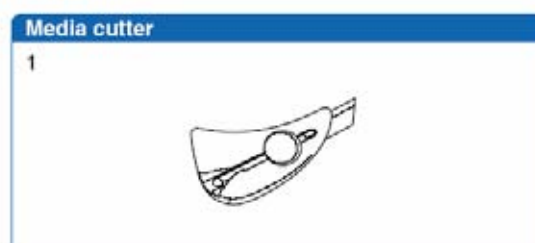
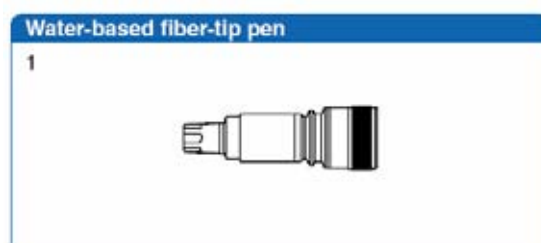
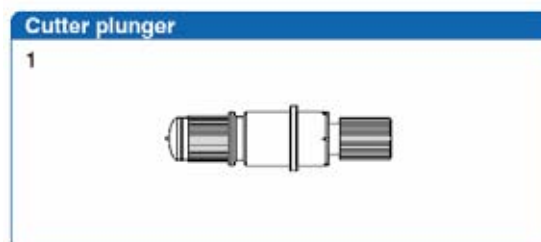
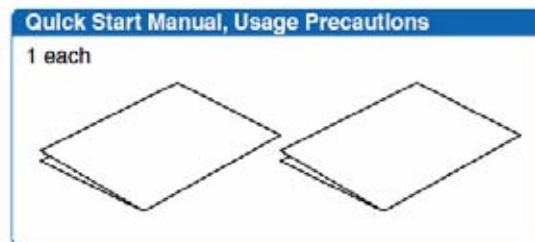
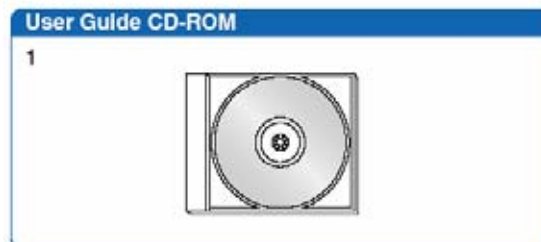
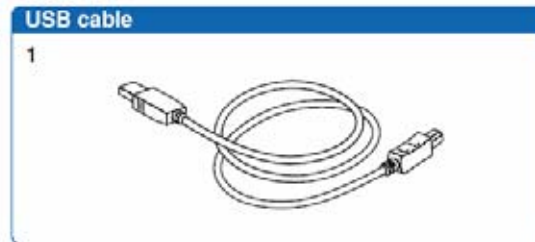
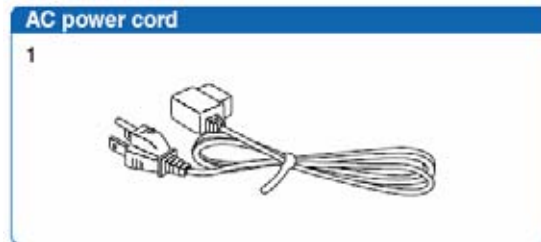
Item	CE5000-60	CE5000-120	Craft ROBO Pro
CPU	32-bit CPU		
Configuration	Grit rolling		
Drive system	Digital servo		
Maximum cutting area	603 mm x 50 m	1213 mm x 50 m	375 mm x 50 m
Range of guaranteed precision	584 mm x 5 m ^{*1}	1194 mm x 5 m ^{*1}	356 mm x 2 m ^{*1}
Compatible media widths	Minimum: 50 mm Maximum: 712 mm (28 inches)	Minimum: 85 mm Maximum: 1346 mm (52 inches)	Minimum: 50 mm Maximum: 484 mm (19 inches)
Maximum media thickness	0.25 mm		
Maximum cutting speed	60 cm/s (in all directions)	100 cm/s (45°direction)	60 cm/s (in all directions)
Specifiable cutting speeds	1-10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60 cm/s	1-10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, * cm/s	1-10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60 cm/s
Cutting force	0.2-2.9N (20 gf to 300 gf) (31 levels)	0.2-4.4N (20 gf to 450 gf) (38 levels)	0.2-2.9N (20 gf to 300 gf) (31 levels)
Minimum character size	Approximately 5 mm for alphanumeric characters (varies depending on the medium, font, etc.)		
Mechanical resolution	0.005 mm		
Programmable resolution	GP-GL: 0.1/0.05/0.025/0.01 mm; HP-GLTM *2: 0.025 mm		
Repeatability precision	0.1 mm or less per 2 m ^{*1}		
No. of pens mountable	1 pen		
Compatible cutter type	Supersteel cutter blades		
Compatible pen type	Water-based fiber-tip pens		
Compatible cutting film	Marking film (PVC, fluorescent, or reflective film) up to 0.25 mm in thickness (excluding high-luminosity reflective film)		
Interfaces	RS-232C/USB 2.0 (Full Speed)		
Buffer capacity	2 MB		
Command modes	GP-GL, HP-GLTM *2(selected on the control panel)		
Display panel	Liquid crystal display (16 characters x 1 row)		
Rated power supply	100 to 240 V AC, 50/60 Hz		
Power consumption	100 VA		
Operating environment	10°C to 35°C, 35% to 75% RH		
Conditions for guaranteed precision	16°C to 32°C, 35% to 70% RH		
External dimensions (W x D x H)*3	Approx. 851 x 585 x 1004 mm	Approx. 1,487 x 744 x 1194 mm	Approx. 623 x 285 x 223 mm
Weight*3	Approx. 25 kg	Approx. 40 kg	Approx. 9.4 kg

*1: Varies depending on the type of Graphtec-authorized film and the cutting conditions

*2: HP-GLTM is a registered trademark of Hewlett-Packard Company.

*3: Including the stand

Standard Accessories



Shipping volume

Model	Gross Weight (kg)	External dimensions (W x D x H mm)				M3	
CE5000-40-CRP	16	800	x	480	x	440	0.169
CE5000-60	21	1,030	x	480	x	440	0.218
CE5000-120	38	1,630	x	450	x	510	0.374
Stand for CE5000-60 (ST0065)	11	900	x	210	x	210	0.040
Stand for CE5000-120 (ST0066)	25	1,580	x	510	x	190	0.153

Packing drawing

GRAPHTEC

Craft ROBO Pro
CE5000-40-CRP

Japanese Technology
Tecnología Japonesa
Technologie Japonaise

DESTINATION: J E U B T

SERIAL No.:

Made in Japan
Made in Japonesa
Fabriqué au Japon

GRAPHTEC

Craft ROBO Pro
CE5000-40-CRP

Japanese Technology
Tecnología Japonesa
Technologie Japonaise

DESTINATION: J E U B T

SERIAL No.:

Made in Japan
Made in Japonesa
Fabriqué au Japon

RoHS

New format for Destination

3 language

Options

Designation	Part No.	Description
Basket	PG0022	Basket for CE5000-60
	PG0021	Basket for CE5000-120

Supplies

Designation	Part No.	Description
Cutter holder	PHP32-CB09N-HS	1 holder for the 0.9-mm-diameter supersteel blade
	PHP32-CB15N-HS	1 holder for the 1.5-mm-diameter supersteel blade
Cutter blade	CB09UA-5	Set of 5 0.9-mm-diameter supersteel blades
	CB15U-5	Set of 5 1.5-mm-diameter supersteel blades
	CB15UB-2	Set of 2 1.5-mm-diameter supersteel blades for cutting detailed charac
Water-based fiber-tip pen	KF550-F8	1 pen each in red, black, violet, brown, blue, green, orange, and pink
	KF550-S1	2 black pens and 1 pen each in red, blue, and green
	KF551-RD	5 red pens
	KF552-BK	5 black pens
	KF555-BL	5 blue pens
	KF556-GR	5 green pens
Loupe	PHP-61LOUPE	Loupe with 6x magnification
Carrier sheet A3	CR09300-A3	Carrier sheet A3 for CE5000-40-CRP

* Other sets of water-based fiber-tip pens are also available in single colors (violet, brown, orange, or pink).

CE5000 vs CE3000

- Corresponding to 11 local languages
- Enhancement of the software
 - Cutting Master 2
 - ✓ The user interface is renewed. Plug-in driver that is common for Illustrator , Corel DRAW
 - ✓ Corresponding to 11 local languages
 - ✓ Additional function : Tiling, Line width detection, Welding, Number of cutting, etc..
 - ✓ Corresponding to Corel Draw X13
 - Plotter Controller
 - ✓ Corresponding to 7local languages
 - ✓ Bi-directional control
 - ROBO Master Pro
 - ✓ An easy sign software “ROBO Master Pro” is added as a standard accessory.
- Adopting a new ARMS that is as same as for the FC7000
 - The segment area compensation is added
- Interface: Centronics interface is deleted
- External color is renewed: same color as FC7000
- Design of the stand is changed