

GOCCOPRO 100

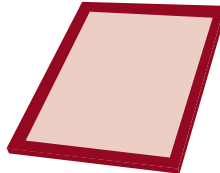
Digital Screen Printing Guide



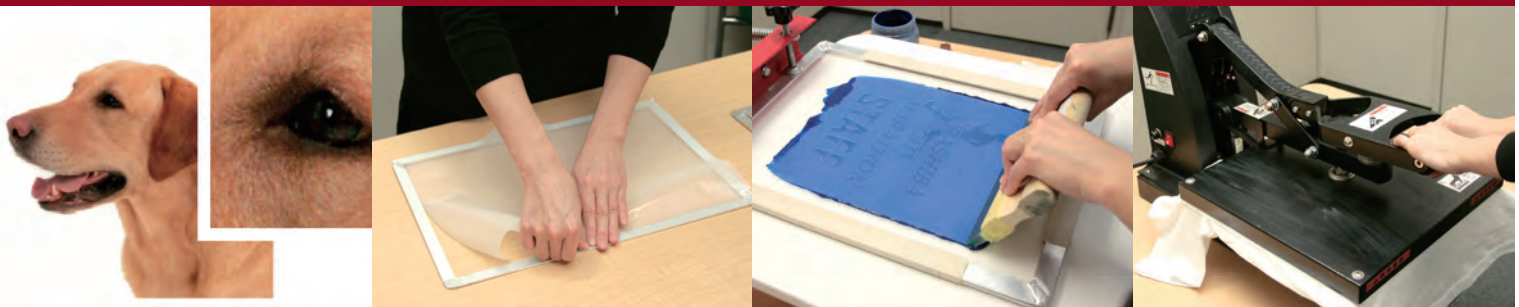
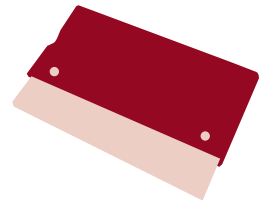
Creating a Screen



Stretching onto Frame



Squeegeeing and Printing





Creating a Screen

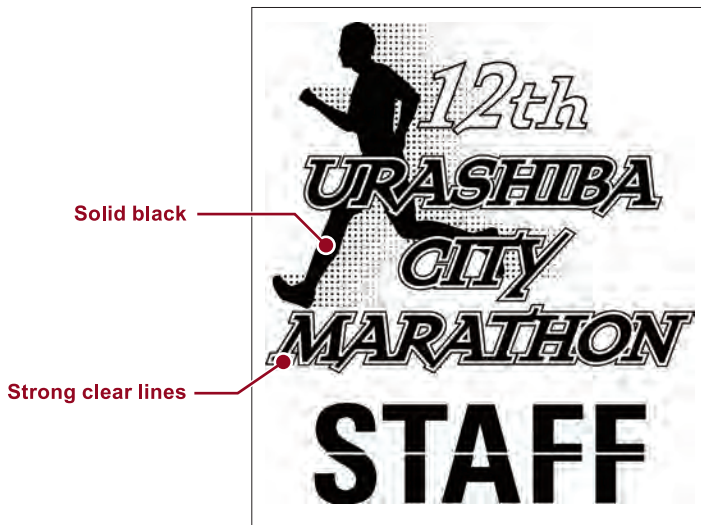
GOCCOPRO100 burns images onto screens directly from data received from the PC. The GOCCOPRO100 printer driver can easily process the half-tones and gradations of illustration and photos.

✓ Texts and Line Drawings

Use solid black to fill in the portions of original data which should print through screen.

Overly fine or blurred letters and lines may be difficult to burn clearly. We suggest using strong clear lines.

Example of good original



Original



Higher mesh counts result in finer reproductions.

Burned as 70 mesh screen



Burned as 120 mesh screen



Burned as 200 mesh screen



✓ Tips for Editing

Half-tone processing will be automatically applied to all color or half-tone areas which are not 100% solid black. Solid areas should be rendered in 100% solid black regardless of the color you later wish to print in.

- When using Word or PowerPoint®, create texts and lines using monotone black.
- When using Illustrator®, Photoshop® or any other design software, create designs using RGB color mode.
 RGB=R0:G0:B0 or Grey Scale:K100
 K100 on CMYK mode (CMYK=C0:M0:Y0:K100) will be processed as half-tone dots.

*GOCCOPRO100 requires no special application software. Screens can be created using any application which runs on your OS.

✓ Size

The maximum size of the original data will depend on the size of the frame you wish to use.

*If the size of the original is approximately A4 (letter) size, Frame 39 Clip Fit or Frame 42 Screw Fit is recommended.

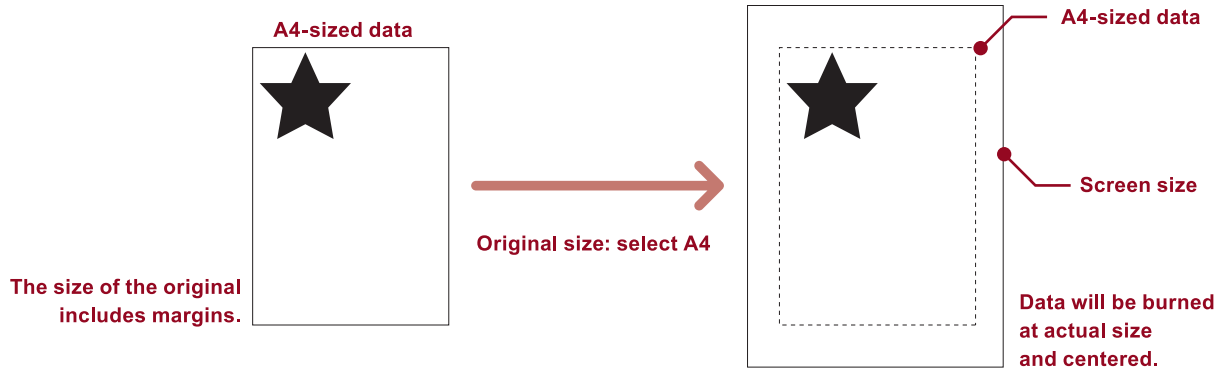
Frames	Original (Max)	Recommended Size for Original
Frame 39 Clip Fit	250mm*1×310mm	230mm*2×310mm or less
Frame 55 Clip Fit	250mm*1×470mm	230mm*2×470mm or less
Frame 42 Screw Fit	230mm*1×370mm	210mm*2×360mm or less
Frame 53 Screw Fit	230mm*1×470mm	210mm*2×470mm or less
Quick Frame A3159	220mm*1×470mm	220mm*2×470mm or less

*1 Maximum printable width

*2 Recommended printable width

✓ Printer driver Configuration and Position on Screen

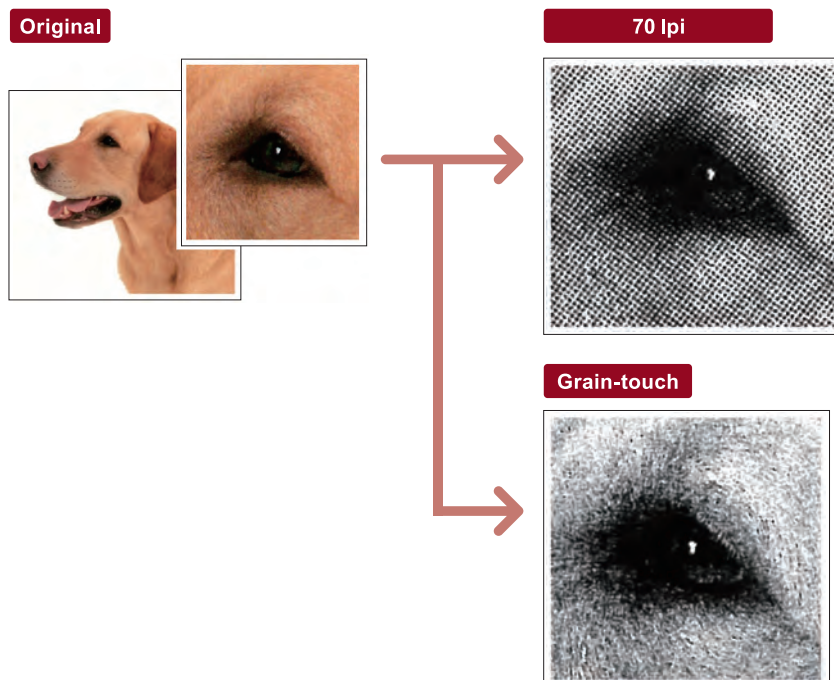
In order to place a design in the center of the screen, you must center it in your original application before burning an image.

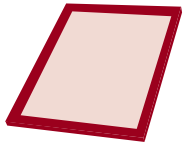


✓ Printer driver settings: Photographs, half-tones, etc.

For photo and half-tone processing settings, two modes are available.

- “Screen-covered” (dot screen processing): The shades of the original are expressed in regular dots. When screen-printing on fabric, 50-70 lpi is recommendable.
- “Grain-touch” (Error-diffusion): This setting expresses the shades of the original data, but it is also suitable for lines and outlines that reproduce poorly when using half-tone dots.



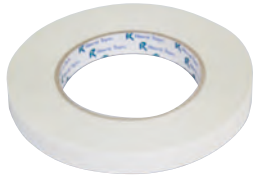
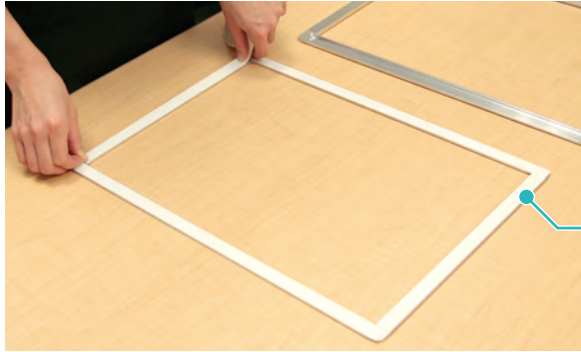


Stretching onto Frame

Stretching an imaged screen onto a Clip Fit Frame.

STEP 1

Place double-sided tape on the four sides of the half of the Clip Fit Frame without protrusions. Ensure that the tape is firmly affixed.



Double-sided adhesive tape

» Tip to ensure tape is firmly affixed



Ensure that tape is firmly affixed by rubbing with the back of a squeegee, flat edge of a closed pair of scissors, or similar instrument.

STEP 2

Stretch the imaged screen onto the frame as follows.

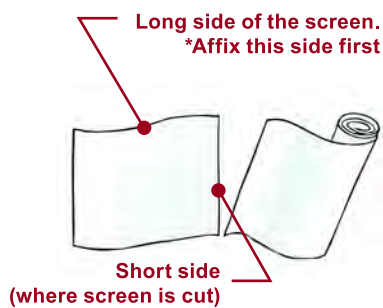


(1) Place the shiny side of the screen face-down and affix beginning from the long edge, aligning and stretching to each corner in turn.

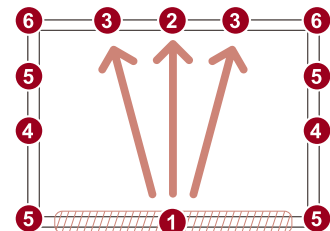


(2) When finished, ensure that the screen is firmly affixed by rubbing with the back of a squeegee, flat edge of a closed pair of scissors, or similar instrument.

» Stretching the screen correctly



If you hold the screen in both hands and attempt to stretch it directly onto the screen all at once it will wrinkle or warp. Affix point by point, in the order shown.



For a flat screen, stretch in the order shown.

STEP 3

Position the side of the frame with the screen affixed facing down, and place into the other half of the frame. The half of the frame with the screen attached should fit into the protrusions of the remaining half.



STEP 4

Attach clip, beginning diagonally.



Short side ⇄ Long side

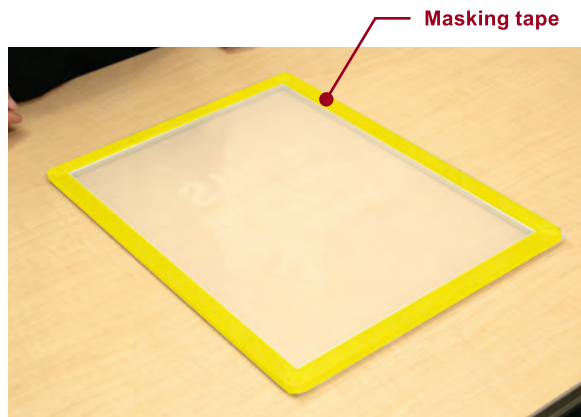


Either side may be attached first.

Long side ⇄ Short side

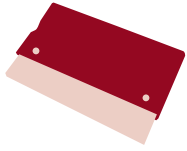
» Tips for creating a more durable frame

If you have a high volume of printing or expect to reuse the screen in the near future, you can reinforce the screen by taping the edges of the frame with masking tape before applying the clips.



Masking Tape

Be careful not to wrinkle the screen when applying.

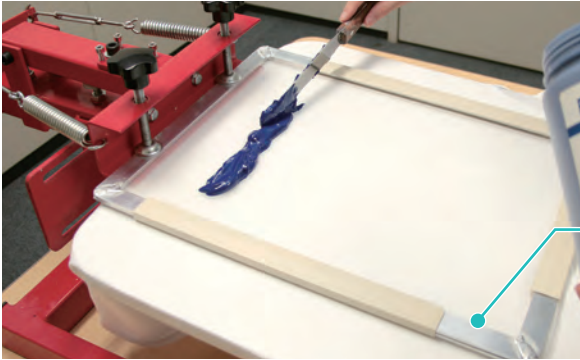


Squeegeeing and Printing

Apply ink onto the stretched frame and print using squeegee.

STEP 1

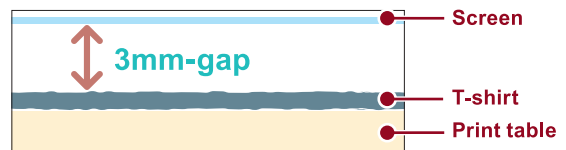
Apply ink onto the screen.



Tip for preventing ink from smudging

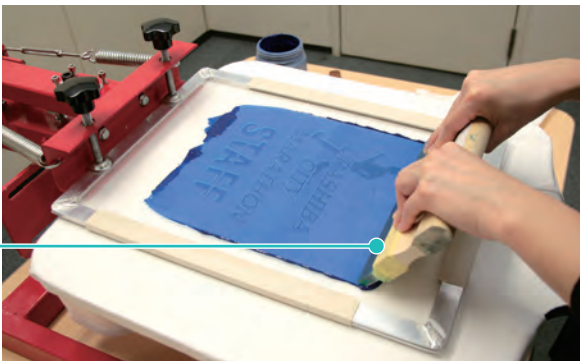
Make a 3mm-gap between the screen and the object being printed in order to prevent the screen from sticking. This will help reduce smudging.

<From the side>



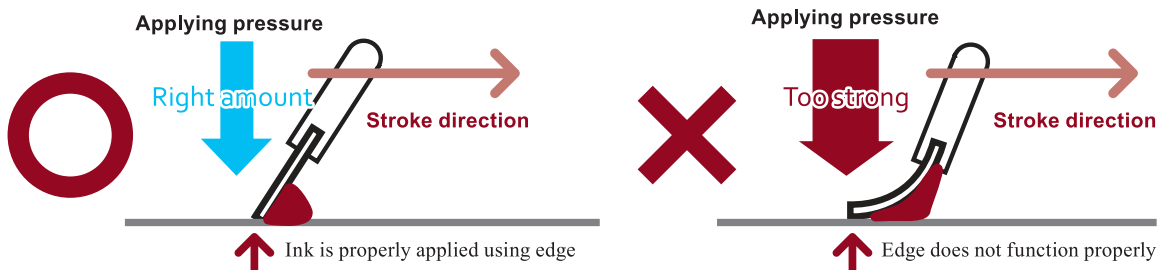
STEP 2

Print using squeegee.



Tips for using squeegee

Keep the squeegee at a steady angle of 45-60 degrees and pull at a fixed pace.



Preventing clogs

When printing using water-based ink for textile, clogs can be abated by pushing ink back with squeegee.



**STEP
3****Allow to dry.**

If you wish to finish a piece quickly, dry using a hand-dryer before curing with heat-press.

**STEP
4****Curing ink.**

When using Waterbased ink, cure for over one minute using a 150°C heat-press.

*Curing conditions depend on the type of ink being used. Please follow instructions.

**✓ Selecting a Squeegee**

There are a variety of squeegees on the market which differ by shape, hardness, thickness of the blade and so on. The following is for reference when choosing a blade.

Type	Comments	Plastisol ink	Water-based ink
Hardness: #70, Thickness: 9mm	Keeping squeegeeing pressure constant is easy because the blade rubber does not bend or stretch.	Recommended	
Hardness: #60, Thickness: 9mm	Common standard squeegee, can cope with most jobs.	Recommended	Recommended
Hardness: #70, Thickness: 6mm	A good choice when you wish to press out more ink. However, if too much pressure is applied the blade will bend and too much ink will be pushed through.		Recommended

*The above reference is based on standards in the Japanese screen-printing industry.

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Manufacturer:

RISO KAGAKU CORPORATION

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<https://www.riso.co.jp/product/goccopro/>

GOCCOPRO Forum <https://goccoproforum.net/en/>



GOCCOPRO 100
Screen Printing Guide
<version 6 >

Issued July, 2019
Issued by RISO KAGAKU CORPORATION