Custom Gobo Information:

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Custom Gobo Information Overview

Our custom gobo service is intended to provide as much flexibility as needed to meet the requirements of your project. But there is no substitute for having enough time to get the job done right.

Some basic guidelines to help you plan your job are:

1. Know your artwork.
Often the person ordering the custom gobo has nothing to do with getting the artwork created. But without knowing what the artwork is - black and white, photographic color, a simple 2 color logo etc. - we cannot give you a quote, provide delivery estimates or accept the job.
2. Know your fixture.
The fixture you use will determine the size of the gobo and size determines price. The fixture will also tell our Customer Service staff whether your gobo will be subject to normal or extreme temperatures. And we'll know what type of gobo is best suited to use in your fixture. A link to Rosco's sizing chart is provided in every gobo's description.
3. Know the job.
How many gobos do you need? (Do you want an extra for backup?). When do you need the gobos (more specifically, when is the "drop-dead" date since invariably custom gobos are rush jobs!) **Provide the correct Ship To address and shipping method.**

Estimated Delivery Schedules

Type	Delivery	Details
Custom Steel	2 days	We receive the order today before 2pm EST, we ship tomorrow.
Silk Screen	1 Week	Gobo will be ready to ship 5 working days ARCO*.
B/W or 1C	3 days	Gobo will be ready to ship 3 working days ARCO
Two Color	3 - 5 days	Gobo will be ready to ship within 3-5 working days ARCO
Multi-Color	5 - 7 days	Gobo will be ready to ship within 5-7 working days ARCO
Hi-Def Photogobo	7 - 10 days	Gobo will be ready to ship within 7-10 working days ARCO

Rush Jobs: Rosco strives to meet whatever deadline the customer requires. We routinely ship gobos more quickly than this chart indicates. Such rush jobs are accepted on a cases by case basis dependant, of course, on our job load at that moment. A rush delivery may be purchased. It is included in every custom gobo's description.

* ARCO = After Receipt of Complete Order. Complete order means we have received (a) acceptable artwork, (b) job details including gobo size, quantity, image details, etc., (c) Purchase Order from authorized Rosco Dealer. Rosco cannot begin to work on a job until we have received all of this information. That is when the clock starts on the delivery time estimates.

Acceptable Image Formats/Resolutions

Computers and graphic design programs are both highly sophisticated and incredibly easy to use. With clients using a diverse range of platforms and software, Rosco will try to accept almost any electronic file. As an online company, the Stage Lighting Store prefers images to be emailed to orders@stagelightingstore.com.

Below is a set of guidelines to assist you in preparing your design - in whatever - format for a successful transfer to a custom gobo.

Electronic Designs

Postcript Formats

Adobe Illustrator (.ai)

> For almost any style design except for photographic images, the preferred, ideal file format is a native Adobe Illustrator file. This kind of vector-based artwork creates the best gobo toolings.

EPS Files (eps)

> A close second to Illustrator files are files saved in eps format. This format can be created from many of the popular graphics programs available. EPS files maintain excellent image qualities and allow for moderate resizing without degrading the image quality.

PDF Documents (.pdf)

> While there are many advantages to pdf files, ease of use in gobo making is NOT one of them. We may be able to extract the images embedded in pdf files, but they are almost always low resolution and produce poor quality gobos.

Rasterized Formats

Adobe Photoshop (.psd)

> Native Photoshop files provide tremendous versatility by allowing all the elements of a design to be edited by Rosco's graphic designers. This file format maintains text editing (v.5 and higher) and preserves layers. In addition, Photoshop is the ideal format for photographic designs or Hi-Definition Photogobos.

TIFF Files (.tif), BMP (.bmp), PICT (.pict)

> Digital cameras and many graphics programs provide means for saving images in TIFF, BMP or PICT format. These files are uncompressed and maintain a very high image quality. However, they are often extremely large, so much so that electronic transfers are difficult. Despite that, these file formats produce excellent gobos.

JPG (.jpg), GIF (.gif)

> These file ttypes are commonly found in use on the world wide web. In general, they are less well suited as artwork for custom gobos.
> GIF files are 72dpi, and contain a limited color table. This means that altering the file in any way - resizing, adjusting contrast, color correcting - is virtually impossibel to accomplish without significantly degrading the image. So unless the file provided needs no alteration at all (very uncommon), it is a poor format choice.

JPG files are a compressed file type which helps to keep even very complex images relatively small. But this compression makes it difficult to alter the image without introducing artifacts which degrade the image quality. If you will be submitting jpg files, make sure to submit a file that is 2x the size of the finished gobo.

CAD Files (.dxf, .dwg)

CAD files should not be submitted at all. Despite claims by the software companies to the contrary, these file types almost never successfully convert into a usable file format.

Image Size and Resolution Guidelines

First, if you are working in Adobe Illustrator, this section is irrelevant to you. Resizing in Illustrator is accomplished with no loss of detail or quality.

Otherwise, you must decide at what the resolution and size to create your design. Your choice of gobo type will influence this decision. In general, you should create your design at full size - that is 100% of the size of the finished gobo, or larger.

Type	DPI	Notes
Custom Steel	150 dpi	Line art is not usually degraded by low resolution files. But small text may be difficult to render.
Silk Screen	150 dpi	Line art is not usually degraded by low resolution files. But small text may be difficult to render.
Line Art (B/W)	150-300 dpi	If the design has fine details or gradients, a higher resolution will produce a better quality gobo
Grey Scale / Photographic B/W	600 dpi	Smooth tonal values require high resolution images
Line Art (Multi-Colored)	300 dpi	If the design has fine details or gradients, a higher resolution will produce a better quality gobo
Hi-Def Photogobo	800 dpi	To achieve smooth color blends and fine details requires a very high resolution file.

To calculate the pixel size of your design, multiply gobo size (in inches) by the recommended resolution. The result is the recommended size of your artwork. For example, if you are creating artwork for multi-colored logo in B size gobo: 2.54 inches x 300 pixels/inch = 762 pixels. So the artwork you submit to Rosco should be no less than 762 x 762 pixels, though larger is perfectly fine.

Note that pixel size is independent of resolution and so is a preferred manner of describing file size.

Pixel Size = Size (inches) x Dots (pixels) Per Inch

Submitting Files to the Stage Lighting Store

Archive Your files

Using a commercial archive and compression tool like WinZip, PKZip or Stuffit, archive all of your artwork files into one file. Archives larger than 10MB should be broken up into multiple archives.

Place the order

Gobos are available in the Stage Lighting Store Catalog under Stage Lighting Store > Lighting Accessories > Gobo (Patterns). Navigate to the desired gobo type and add it to your shopping cart. If desired, purchase all copies and rush charge fees at this time. **Copies must be purchased with the original gobo. The reduced price will not be applied for copies ordered after the original gobo is ordered.** Then check out and pay for the gobo.

E-Mail

Attach you artwork archive to an email message addressed to orders@stagelightingstore.com. Make sure to include contact information in the body of your email (including a phone number that you can be easily reached at), as well as the order number/confirmation number of the order you placed. One of the most common problems delaying the delivery of Custom Gobo orders is "orphaned artwork" which arrives with no name or other identifying information. The Stage Lighting Store does not have an FTP server or any other upload service. The only way to send us your artwork is through email.

Ways to Avoid Image Problems

Text and Font Problems

Text created on a computer uses a special resource file, a font, to draw the shape and size of the letters. The data describing this shape is stored within that font file, not within the artwork you create. Your artwork simply "points" to the font information This can lead to an unexpected problem when sending files from one computer to another. If the new computer opening your artwork does not have the same font resource that the original machine contained, it will attempt to draw the text by substituting another font resource, often one that is in no way similar to the original. As far as your design is concerned, this can be devastating. Not only do the letters look wrong, but the size and spacing of the words is likely to be very different as well!

To prevent this, always include with your custom gobo order, information about any font used in the design. This way Rosco's graphic artists can maintain the original look of your design. Alternately, if you are using a program like Adobe Illustrator, the software allows you the option to convert you text into "outlines" that can be read accurately on any computer.

Image Background

When you create artwork for a black and white gobo (Custom Steel, Silk Screen Gobos, or Black and White Spectrumgobos) make sure that you specify whether the artwork is "positive" (black in artwork indicate the black areas of the gobo) or "negative" (black areas in artwork indicate white/clear areas of the gobo).

When creating an image, a graphic designer chooses whether the design will be printed on white paper or black paper. When you design an image to be projected, you have the same choices to make. If a gobo is made of an image surrounded by white (clear glass) and then projected, the image will be surrounded by a pool of white light. Alternately, when the gobo has been made with a black background surrounding the design, the black/opaque glass blocks the light and allows just your design to project. Rosco recommends that your design be set into a black background as this creates the most successful projection. When a design is surrounded by a pool of white light (from a clear/white gobo background) the design gets washed out and color saturation and contrast is reduced.
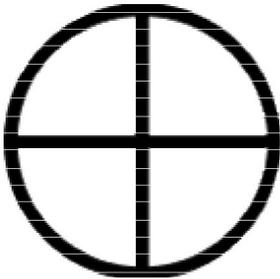
Some designs are more difficult to set into a black background and will require some minor redesign to accomplish.
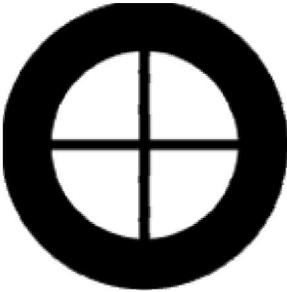
Front or Rear Projection

The decision to project your image from the front side of a screen or the rear side of a screen may have significant impact on the design of the artwork for your custom gobo. If you are ordering a single layer gobo (custom steel, silkscreen, b/w, or one color) then it is not necessary to specify front or rear projection. If you receive your finished gobo and then decide to change the projection mode, you can simply flip the gobo over in the fixture, and "voila" it is oriented properly for your new projection mode.

However, Two Color, Multi-Color and Hi-Definition gobos have a flanged mounting bezel. Your custom gobo is manufactured into this ring, based on your specification for the projection orientation. If you later change this projection mode, your gobo cannot easily be "flipped" to project properly. Plan ahead and specify in advance which mode of projection you will be using.

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Positive v. Negative Artwork On the artwork that you submit, be sure to specify whether the black areas in the artwork should be black in the finished gobo (positive artwork) or whether the black areas in the artwork should be white/clear in the finished gobo.

Original Artwork
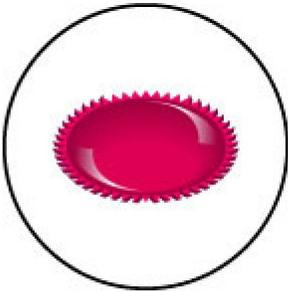
Positive Artwork
(black = black)

Negative Artwork
(black = white/clear)

Black Background v. White/Clear Background Be sure to indicate whether your design should be set against a white background or a black background. For the best projection, Rosco recommends a black background because it helps to increase perceived contrast and color saturation.

Original Artwork

White/Clear Background

Black Background
(recommended)

Outlined Artwork If the design you create has an outline (that matches the background of the gobo), please indicate whether the gobo should include this outline element or not.

Original Artwork

No Outline

Include Outline

Rectangular Artwork into Circular Gobos Many designs are submitted to Rosco as rectangles. Of course, a gobo is round, and has a round projection area. In the case of photographic designs, you must specify whether your projection should be the rectangle shape you submit (with black around it to define the shape) or whether you want Rosco's graphic artists to "cut" a circular image area out of the design.

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Original Artwork

Inset Rectangle

Circular Cut-Out