

A RAINBOW GOBO

Author Unknown

Go to a glass store, get a piece of 1/8" pyrex plate glass (used in fireplace doors) have them cut it the size of a source four gobo holder. Place a gobo holder on the glass and trace the hole that the gobo would fit into, in that hole, paint the rainbow (Upside down) using inks that are translucent. Carefully slip the new glass gobo into your source four, and VOILA! A rainbow.

We also did some woodcut like images for one show by spraying the plate with barbecue black paint and then scraping away the lighted lines, those glass plates tended to fracture from the heat in the gate but were fixed by wrapping them with mylar tape and then did not crack further. Pastel landscapes did not absorb enough heat to crack.

Old fashioned stagecraft. You know what a Linnenbach projector is. Create one using a fresnel without a lens. Take the lens out of a fresnel, paint a rainbow on a piece of framed acetate, plexi, clear acrylic, glass (careful with glass). etc. Place, or hang, the "slide" 10" to 20" in front of the fresnel and Ta Daa! You have a rainbow projection.

More detail: first a 1K fresnel is best, 500 or 750 just won't cut the mustard. Depending on how well aligned the reflector is and how sharp you want the image, you may also want to remove the reflector. You will want to use a 4 way barndoor to control spill.

Next paint your rainbow. Use Doc Martins watercolor dyes, Craft store stained glass paints, or other clear transparent paints. The size is what will surprise you if you've never done lens less projection before. depending on how large you want the rainbow and your projection distance, it is not uncommon for linnenbach slides to be 24"x36". How big to make the slide is simple math. The size of the desired image(H1)divided by the distance from the light source to the screen (D1) is equal to the height of the image on the slide (H2) divided by the distance from the light source to the slide (D2) or $H1/D1 = H2/D2$. Say your throw from the fresnel to the cyc (projection surface) is 15' and you want the rainbow to be 8' high. If the slide is 18" from the lamp your formula would be $96(8'in\ inches) \text{ over } 180(15' \text{ in inches}) = X \text{ over } 18$ or 9.6" high for your slide. Because of the distance from the lamp and the air space, the slide can be made of any clear material.

One neat thing about this kind of projection is that if you mount the slide parallel to the projection surface, there is no keystoneing to worry about. Also, it is always in focus. Sharpness is increased by moving the slide further from the lamp and closer to the projection surface. If you want a very clear picture without brush strokes, find someone who has and can use an air brush. You can also cut the rainbow out of gel and tape it to the clear plexi or whatever you use.