

WORKING WITH CUSTOM DECALS



Modern custom decals are slightly different than old fashioned decals. Let's address that. With older decals the flux, or what makes them fire, was in the ink and they were covered with a clear film during the printing process. This clear film had no flux in it and therefore burned out within the first 300 degrees of firing. These decals had to be silk screened and it was horribly expensive to have custom ones done because of the original setup charges. They were cost prohibitive for weddings, clubs, or anything you wanted just a small run of. The smaller our industry gets the more cost prohibitive they become in general.

Today's custom decals still have flux in the color but not in quite the same way so that they can go through special printers that are much like a laser printer, but with special toners made in Europe. These decals will have a slight colored film over the image to protect it. Our Orange cover is non-flux and therefore burns off in the first 300 degrees of the firing, and leaves the background with no shine. Therefore they will fire equally well on both porcelain bisque as well as any glazed surface. Note: the image on glaze is a wonderful semi-gloss not high gloss. There is no need to cut close to the image. All of the orange will fire out so feel free to use lots of the orange around the decal to give you room to work with the decal. The Green cover is a gloss cover and will give a high shine to the artwork but can often leave an edge. Cut close to your artwork and you will be fine. We are working on methods to fire and keep that color but not the edge.

Begin by buffing your porcelain if you are firing on porcelain bisque. Make sure that it is as smooth as you can get it and then clean the surface with rubbing alcohol and a lint free paper towel such as Viva, an old baby diaper, or other lint free fabric. After the alcohol we often sand once more and repeat. If you are working on a glazed surface then there is no need to buff but still use the rubbing alcohol to remove anything that might be on the surface. Wait for the alcohol to evaporate or wipe with a second dry lint free paper towel.

Use a bowl large enough to house the decal you have chosen and enough warm tap water for it to get well soaked. Leave the decal in the water just long enough for it to get completely wet. You don't want it to come off the paper and float in the water or you will lose some of the stick to the decal. If you need to you can always soak it again. When you can feel that it is sliding on the paper then carefully slide it off the paper onto the piece you are placing the decal on. You can either use a plastic squeegee or fold a lint free paper towel into a pad and carefully press from the center outward to remove any bubbles under the decal. Not too much

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pressure or you can rip the decal. Get the decal as smooth as you can and then set it aside to dry. Allow it to dry for at least 3 hours. We prefer to let them dry overnight if possible just to be safe.

FIRING THE DECAL

Firing modern decals is slightly different than old fashioned decals. You need to be much slower with the firing, especially if you are firing on glaze. The object with firing on bisque is that they will look like you have hand painted the picture onto the porcelain, rather than looking like a decal. Many people think that when they get a tiny hole, or white spot in their fired decals that they left air underneath the decal. This is usually not the case. It is more often caused by firing too quickly so that the flux and ink didn't blend well enough, thus causing a spot. We will address both automatic kilns and old fashioned cone sitter kilns. No matter which type of kiln you have make sure the top peep hole is always left open for good air circulation. If you prefer you can leave them all open, which is another way to slow down the firing times. A third way is to actually crack the lid of the kiln with a ½" post and leave it that way for the entire firing.

AUTOMATIC KILNS:

For ORANGE cover: You can easily use automatic kilns but you need to either program it to fire around 150 degrees per hour until it reaches a cone 018, or program it to hold when it reaches 750 degrees for about two hours. You can also use the slowest preset, which in most cases is slow bisque. Slow glaze presets will fire much faster than slow bisque. The decals fire best if they fire for 6 to 7 hours. If you fire for 10-11, as with the green cover your colors will not be as bright. Keep in mind that if you have a full kiln it will automatically fire more slowly. If you have only a few pieces in the kiln, even on a slow preset, it will fire too fast so slow it down. You can crack the lid for the first three hours to slow it down.

For GREEN cover: Again you can easily use automatic kilns but you need to program it to fire as shown below:

Program your kiln for three segments with two holds as shown below

<u>Step</u>	<u>Temp</u>	<u>Rate</u>
1	From 0 °F to 200 °F	50 degrees per hr.
Hold for 120 min.		
2	200 °F to 800 °F	100 degrees per hr.
3	800 °F to 1420 °F	400 degrees per hr.
Hold for 20 minutes		
Cool		
Firing time about 13 hours.		

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MANUAL KILNS:

ORANGE cover: Manual kilns can also be used quite easily to a cone 018. You just have to work a little harder. Keep in mind that you want it to fire 6-7 hours. Start the kiln on low and crack the lid about three inches. Let it fire this way for two to three hours and then go to medium, keeping the lid cracked. Let it sit on medium for about two hours. Then switch the kiln to high. Leave the lid open for one more hour and then shut the lid. The kiln will shut off shortly and should be fine because of the air circulation you have given the decals you are firing.

GREEN COVER: Manual kilns can be a little harder but you can accomplish it. Start on low with the lid cracked about three inches but fire for about 5 hours this way. Then go to medium and fire for 3 hours. Go to high leave the lid open for another 2 hours and then shut the lid. It should reach the cone 016 shortly

NOTE:

You can fire these decals several times if you want to enhance them with china paints, or to repair any small burnouts. Just make sure and always fire them slowly if they are on bisque. If they are down into a glaze then subsequent firings can be more rapid if you desire.