



Purging Your Solder Pot - A Step-By-Step Guide

Our thanks to American Beauty for allowing us to reprint the following article.

There may be times when it will become necessary to remove the existing solder alloy from your solder pot crucible. When this situation arises it is very important for you to remember that you will be handling a very hot molten solder material and you should exercise **extreme caution** throughout the entire purging process.

Caution: Never attempt this process without using protective shielding devices and heat resistant attire.

You will need to have a discard receptacle for collecting the solder that is being removed from your solder pot. This can be a reservoir made from aluminum foil that is nested inside a larger container on a blanket of noncombustible material such as sand, vermiculite or clay based kitty litter. Make sure that the receptacle is of a sufficient size to accept all of the solder that is being removed from the solder pot.

The work area, solder pot and discard receptacle that are being used for this process should all have highly visible signs and posted markings warning personnel of the intense heat and the potential for severe burns that may exist. The work surface that you intend to use for this procedure should be smooth, level, and heat resistant. It is also a good idea to have the work surface covered with a protective sheet of noncombustible material in case there are any accidental spills or splashing of the hot molten solder.

In order to help prevent the possibility of any unnecessary accidents you should always limit the number of personnel that are allowed to be within the work area especially during this type of process. To help prevent tripping or restricted movements of your operators you should make sure that the work area is always kept clean, organized and uncluttered.

When you get to the solder pouring step of this process do not rush. The pot's cast iron crucible has a great capacity for holding heat and it should keep the hot solder molten long enough for you to safely empty your solder pot. You should however plan on dumping out the contents of the solder pot soon after unplugging it. If you have waited too long (and the solder's surface has begun to cool and skin over at all) do not attempt to empty the solder pot. The risk of splashing will become very high and the molten solder beneath the surface skin

will be dangerously hot. It is better to plug the solder pot back in and reheat it until the solder has once again completely melted. The following steps will help to outline the specific procedures that should be followed in order to complete the purging process in a safe and efficient manner.

Never work alone when performing any operation that has the potential to be hazardous in any way.

1. Prepare the work area to prevent damage in case of any over splash of molten solder while pouring it out.
2. Place the solder pot on the intended work surface. The surface must be smooth, level and unobstructed.
3. Place the discard receptacle near the solder pot, making sure that there are no obstructions between them.
4. Plug in the solder pot and heat to its normal operating temperature in order to melt the solder that is in it.
5. When the solder has completely melted remove the dross skimmer assembly and unplug the solder pot.
6. Pour the hot molten solder slowly and very carefully into the previously prepared discard receptacle.
7. Allow the solder in the discard receptacle to solidify and completely cool down before further handling.
8. Invert the now empty solder pot onto a sheet of aluminum foil over a non-combustible flat, level surface.
9. Plug the solder pot back in and turn the thermostat control knob clockwise to its maximum heat setting.
10. Allow the solder pot to heat for 15 to 20 minutes. Any remaining dross will cinder away to a fine ash.
11. Unplug the solder pot and allow it to completely cool down before moving on to the next step.
12. Using a natural bristle brush remove all of the ash. Take care not to disturb the surface of the crucible.

Solder that is removed from your solder pot using this process can be reused if it is not contaminated.

