



IFL Training Shift 04-4: Powder Coating

A guide to using the Hotcoat PCS 250

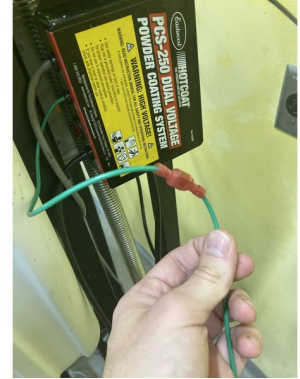
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Introduction

For this shift, you will be powder coating your steel testudo keychain.

Step 1 — Getting Started



- The powder coating station is located between the surface grinder and the belt sander
- The control box is located on the side of the station
 - The control box should be set to 15kV
 - 25kV should be used in the rare cases where you are attempting to powder coat something that already has a coating on it
- If you need to remove the grounding wire for any reason there is a quick connector that can be undone

Step 2 — Gloves and Mask on



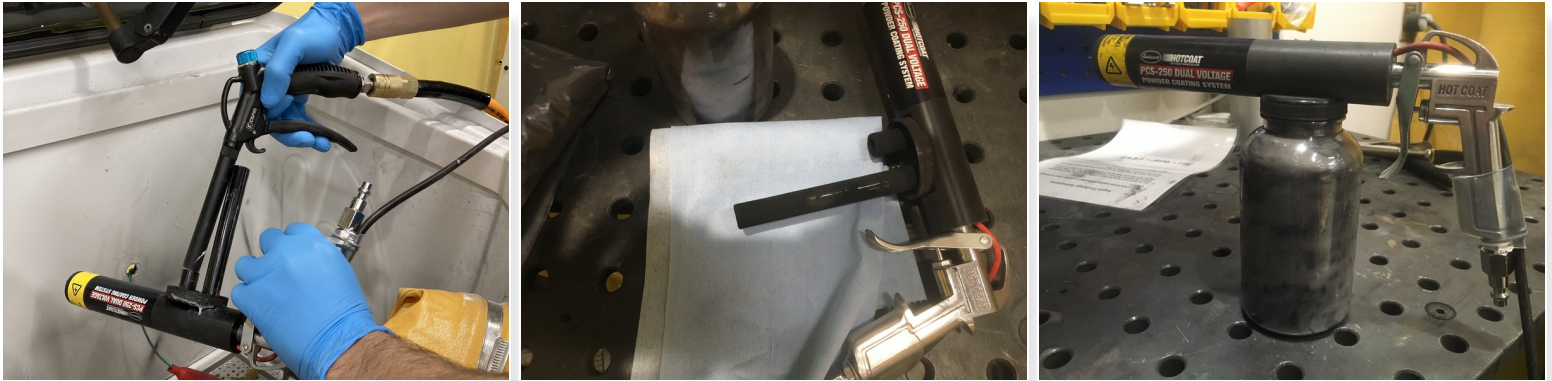
- Put on rubber gloves and a mask

Step 3 — Make Sure the Vacuum Cleaner is Attached



- Make sure that the small orange and black vacuum cleaner is attached to the base of the powder coating tub
- Plug in the vacuum cleaner

Step 4 — Swapping Powder Colors (If Desired)



- Working inside of the powder coating tub with the vacuum on, unscrew the current bottle from the powder gun
- Using the air gun **set to no higher than 10 PSI** blow off any remaining powder of the previous color, making sure to blow through the air gun's tubes
 - Instructions for changing the air pressure can be found in step 7
- Take the cap off of the new color and screw it securely onto the bottle of the old color
- With the air gun, blow off the powder of the previous color
- Screw the new powder bottle onto the powder gun, making sure that it is properly seated and sealed

Step 5 — Hanging the Part and Attaching the Electrical Connector



- The part hook allows the part being powder coated to be hung so all sides can be coated evenly.
- Hang the hook from the wiper at the top of the tub or from one of the other hooks inside
- Hang your part from the part hook
- Attach the grounding clip to the part hook. This will allow electricity to flow through the part without covering part you may want the powder to adhere to

Step 6 — Connect the Air Hose



- Lower the pressure of the air hose to **8 PSI**
 - With the pressure on and the blower handle squeezed, pull down on the black knob and rotate it counter-clockwise until the pressure is at the desired level, then push the knob back up
- Turn the air supply off so the powder gun does not spray by accident
- Disconnect the standard air hose attachment by pulling down on the collar and pulling the attachment out
- Connect the powder gun to the hose by pulling down on the collar and inserting the connector, making sure that it gets seated properly and sits evenly inside the collar
 - It may feel a little loose, this is fine and should not significantly impact performance

Step 7 — Preparing to Spray



- Plug in the powder coating tool
- Turn on the air supply
- Hold the activator in one hand and the powder gun in the other, with the nozzle pointed down into the tub, towards the part

Step 8 — Begin Spraying



- Hold down the button on the activator
 - ⚠ **Never** touch the part being coated while the tool is on and the activator button is depressed
- Begin spraying powder by pulling the trigger on the powder gun. Angle it in different ways so that all sides of the part receive a coating
 - You may need to move the part around to coat all sides evenly. If you need to move the part, make sure that you turn the tool off before doing so
- Pause every so often to allow the vacuum to suck up the powder in the air
- If you notice that powder is having difficulty adhering to the part, there may be a buildup of powder on the end of the powder gun. Turn off the tool and carefully wipe the tip of the gun with a dry cloth before continuing

Step 9 — Transferring to the Oven



- Turn off the tool
- Remove the grounding clip from the part hook
- Carefully hang the part hook from the roof off the oven
- Close the oven door and set the oven to bake at **400 degrees Fahrenheit** for **30 minutes**.
- Once the part is done, turn the oven off and leave the door open to let the part cool for a few minutes
- Once it is cool, carefully remove it using pliers while avoiding touching the hot metal of the oven

Step 10 — Cleanup



- Disconnect the powder gun from the air hose and reconnect the standard blower attachment
- Clean off the grounding clip and powder gun tip by first wiping them with a dry cloth then blowing any remaining powder off with the air hose
- Turn off the vacuum
- Return all components to their proper place

Step 11 — Filling the Powder Bottle (If Needed)



- Use a funnel or make one out of a rolled up sheet of paper
 - Place the bottle and funnel in the powder coating tub and turn on the vacuum
 - Fill the powder bottle with your desired color
 - You shouldn't need a lot, avoid overfilling
 - 2 inches high is a good rule of thumb
- ⚠ Make sure you are using the designated powder bottle for your chosen color**
- Put the cap on the bottle and wipe it down with a dry cloth
 - Turn the vacuum off when done