Eastwood PCS-250

Eastwood Hotcoat PCS-250 Powder Coating System Instruction Manual

Model: PCS-250
Brand: Eastwood

1. Introduction

The Eastwood Hotcoat PCS-250 Powder Coating System is engineered to provide a professional-quality finish for metal parts, ideal for automotive restoration, custom projects, and general metal finishing. This dual-voltage system offers superior durability, chemical resistance, and a clean application process compared to traditional liquid paints.

Figure 1: The Eastwood Hotcoat PCS-250 Powder Coating System, including the gun, power supply, clear powder bottle, and ground clamp.

Powder coating creates a finish that is significantly more durable, chip-resistant, and resistant to various chemicals, including brake fluid, fuels, acids, thinners, and UV light. It also produces near-zero volatile organic compounds (VOCs) and hazardous waste, making it a more environmentally friendly option.

Video 1: An introductory overview of the Hotcoat PCS-250 Powder Coating System, demonstrating its capabilities and benefits.

2. Product Features

The PCS-250 system incorporates several features designed for ease of use and high-quality results:

- **Dual-Voltage System:** Offers both 15,000-volt and 25,000-volt settings for optimal coverage in tight areas (low voltage) and large flat areas (high voltage).
- **Minimal Overspray:** Engineered to reduce wasted powder during application.
- **Larger Ground Clamp:** Provides a secure and effective ground connection for consistent powder adhesion.
- **Clear 8-oz Bottle:** Allows for easy monitoring of powder color and fluidizing action, and facilitates quick color changes.
- **Durable Finish:** The cured coating is highly resistant to scratches, chipping, corrosion, and various automotive fluids.
- **Environmentally Friendly:** Produces near-zero VOCs and hazardous waste, with easy cleanup of overspray.
- **Handheld Activation Switch:** Ergonomically designed for comfortable and precise control during application.

- **Color-Coded Leads:** Simplifies setup and connection of components.
- **Standard Power:** Operates on standard 120V / 60Hz household current.

Figure 2: Detailed view of the PCS-250 system highlighting its key features, including the removable divider tip, voltage options, clear bottle, handheld activation switch, and improved ground cable.

3. Setup

Before beginning any powder coating project, ensure you have all components and a well-ventilated workspace. An oven dedicated to curing powder-coated parts is also necessary.

1. **Prepare the Part:** Thoroughly clean the part to be coated using a pre-paint prep solution to remove any grease, oil, or contaminants. Ensure the part is completely dry before proceeding.
2. **Assemble the Gun:** Screw the empty 8-oz clear powder bottle onto the bottom of the PCS-250 Dual-Voltage HotCoat Powder Coating Gun.
3. **Connect Air Supply:** Attach your air compressor line to the gun's air inlet. Adjust the air pressure regulator on

the gun to between 5 and 10 PSI.

4. **Attach Ground Clamp:** Securely attach the ground clamp to the part you intend to coat. A strong ground connection is crucial for proper powder adhesion.
5. **Add Powder:** Fill the clear bottle with your desired powder coating material.
6. **Power On:** Connect the dual-voltage power supply to a standard 120V / 60Hz household outlet. Ensure the power supply is switched on.

4. Operating Instructions

Follow these steps for effective powder application and curing:

1. **Select Voltage:** The PCS-250 offers two voltage settings. Use the low voltage (15,000V) for tight areas and intricate details to prevent overspray and ensure even coverage. Use the high voltage (25,000V) for larger, flat surfaces to achieve broad, consistent application.
2. **Apply Powder:** Hold the gun approximately 6-8 inches from the part. Press the handheld activation switch to begin spraying. Work systematically around the part, starting with corners and edges, then moving to larger flat areas. Aim for an even, consistent coat.

Figure 3: Demonstrating the application of powder coating onto a metal component, showing the fine mist of powder adhering to the surface.

3. **Correcting Mistakes:** If you make a mistake or bump the part before curing, simply use an air gun to blow off the powder and reapply. Unlike liquid paint, powder coating allows for easy correction before baking.
4. **Curing the Part:** Once the part is evenly coated, carefully place it into a preheated oven. The typical curing time is about 20 minutes, but always refer to the specific powder manufacturer's instructions for precise temperature and duration.

Figure 4: A metal part coated with powder, ready for the curing process. The image emphasizes the smooth and even application achieved by the system.

5. **Cool Down:** After curing, carefully remove the part from the oven and allow it to cool completely. The powder coating will harden as it cools, forming a durable finish.
6. **Achieving Different Effects:** The final appearance of the powder coat can be significantly altered by changing the base coat. For example, applying a transparent powder over a chrome or white base will yield different visual effects.

5. Maintenance

Proper maintenance ensures the longevity and optimal performance of your PCS-250 system:

- **Clean the Gun:** After each use, empty any remaining powder from the bottle. Disassemble the gun components as per the user manual and clean them thoroughly to prevent clogs and ensure consistent spray patterns.
- **Store Powder Properly:** Store unused powder in a cool, dry place in airtight containers to prevent moisture absorption, which can affect its performance.
- **Inspect Cables and Connections:** Regularly check the ground cable, power supply connections, and air lines for any signs of wear, damage, or loose connections.

6. Troubleshooting

Here are some common issues and their solutions:

Problem	Possible Cause	Solution
Poor Powder Adhesion	Inadequate grounding, dirty part, incorrect air pressure.	Ensure ground clamp is securely attached to a clean, bare metal surface. Clean the part thoroughly. Adjust air pressure to 5-10 PSI.
Uneven Coating	Inconsistent gun movement, incorrect voltage setting, clogged tip.	Maintain a steady hand and consistent distance from the part. Use low voltage for tight areas, high voltage for large areas. Clean the gun tip.
Excessive Overspray	Too high air pressure, too close to part, high voltage on small areas.	Reduce air pressure. Increase distance from the part. Use the low voltage setting for intricate work.
Powder Clumping/Not Flowing	Moisture in powder, clogged fluidizing tube.	Ensure powder is dry and stored properly. Clean the fluidizing tube inside the powder bottle.

7. Specifications

Specification	Value
Manufacturer	Eastwood
Model Number	PCS-250
Item Weight	4.38 pounds
Product Dimensions	3.94 x 3.94 x 3.94 inches
Voltage Settings	Dual Voltage (15,000V / 25,000V)

Specification	Value
Power Supply	120V / 60Hz Household Current
Powder Bottle Capacity	8-oz

8. Warranty and Support

The Eastwood Hotcoat PCS-250 Powder Coating System comes with a**1-year limited warranty** and a **90-day return policy**. Eastwood is committed to quality and innovation, offering solutions that combine unique products with expert knowledge. The company provides **Lifetime Tech Support** for its products, ensuring assistance for both experienced builders and beginners. For any technical inquiries or support needs, please contact Eastwood customer service.