

Item #33912

INTERCOATING RACK KIT INSTRUCTIONS



The **HOTCOAT POWDER COATING RACK KIT** includes all necessary components to construct a custom-fit coating rack for both the Eastwood Hotcoat 4X4X6 Powder Coating Booth (#33276) and the Hotcoat 4X4X6 Powder Coating Oven (#33273). With the included precision pre-cut tubes, high temperature casters, and a laser cut hanger plate, all that is needed is a welder with basic measuring and welding alignment tools to assemble the unit.

CONTENTS

- (2) 58.75" Long, 1.5" Square x 0.0625" wall steel tube Uprights [A]
- (3) 37.00" Long, 1.5" Square x 0.0625" wall steel tube Base Sides $[{\mbox{B}}]$
- (2) 30.00" Long, 1.5" Square x 0.0625" wall steel tube Base Ends $\car{[C]}$
- (1) 0.0825" thick, Laser Cut, "HotCoat" Hanger Plate $\left[D \right]$
- (4) Ø4" High Temperature, 450°F Swivel Casters $[{\mbox{\bf E}}]$



SAFETY INFORMATION

IMPORTANT NOTE: Welding can be dangerous to you and other persons in the work area. Injury or death can occur if safe welding practices are not followed. Safety information is set forth below and throughout this manual. Save these instructions for future reference.

To learn more about welding safety, read OSHA Title 29 CFR 1910, available at **www.osha.gov**; ANSI Z49.1, "Safety in Welding, Cutting and Allied Processes," available at **www.aws.org**; and the consumable manufacturer's Safety Data Sheets.

The following explanations are displayed in this manual, on the labeling, and on all other information provided with this product:

A DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

A WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

A CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

A NOTICE

NOTICE is used to address practices not related to personal injury.

READ AND UNDERSTAND ALL INSTRUCTIONS AND PRECAUTIONS BEFORE PROCEEDING.

This unit emits a powerful high voltage and extreme heat which can cause severe burns, electrical shock and death.



A READ INSTRUCTIONS

• Thoroughly read and understand this manual before using.



A DANGER FIRE OR EXPLOSION HAZARD!

 Welding produces sparks which can be discharged considerable distances at high velocity igniting flammable or exploding vapors and materials.

DO NOT Weld in areas where flammable or explosive vapors are present.

DO NOT use near combustible surfaces. Remove all flammable items from the work area where welding sparks can reach (minimum of 35 feet).

- · Always keep a fire extinguisher nearby while welding.
- Use welding blankets to protect any flammable surfaces.



A DANGER ELECTRIC SHOCK HAZARD!

- Improper use of an arc Welder can cause electric shock, injury, and death! Read all precautions described in the specific Welder Manual to reduce the possibility of electric shock.
- Disconnect welder from power supply before assembly, disassembly, or maintenance of welder or components.
- Always wear dry, protective clothing and leather welding gloves and insulated footwear. Use suitable clothing made from durable flame-resistant material to protect your skin.
- If other persons or pets are in the area of welding, use welding screens to protect bystanders from sparks.
- Always operate welders in a clean, dry, well ventilated area. Do not operate a welder in humid, wet, rainy or poorly ventilated areas.
- The electrode and work (or ground) circuits are electrically "hot" when the welder is on. Do not allow these "hot" parts to come in contact with bare skin or wet clothing.
- Stay separated from the welding circuit by using insulating mats to prevent contact from the work surface.
- Be sure that the work piece is properly supported and grounded prior to beginning an electric welding operation.
- Always attach the Ground Clamp to the piece to be welded and as close to the weld area as possible. This will give the least resistance and best weld.

SAFETY INFORMATION



A WARNING HEALTH HAZARD!

- Fumes and gasses released during welding are hazardous. Do not breathe fumes that are produced by the welding operation.
- Prolonged inhalation of welding fumes above safety exposure limits can injure the lungs and other organs.
- Use enough ventilation and/or exhaust at the arc to keep fumes and gases from the immediate working area.
- Use an OSHA approved respirator when welding in confined spaces or where there is inadequate ventilation.



A WARNING ELECTROMAGNETIC HEALTH HAZARD!

- The electromagnetic field that is generated during arc welding may interfere with various electrical and electronic devices such as
 cardiac pacemakers. Anyone using such devices should consult with their physician prior to performing any electric welding operations.
- Exposure to electromagnetic fields while welding may have other health effects which are not known.



A WARNING ARC RAYS CAN INJURE EYES AND BURN!

- Arc rays produce intense ultraviolet radiation which can burn exposed skin and cause eye damage. Use a shield with the proper filter
 (a minimum of #11) to protect your eyes from sparks and the rays of the arc when welding or when observing open arc welding
 (see ANSI Z49.1 and Z87.1 for safety standards).
- Use suitable clothing made from durable flame-resistant material for skin protection.
- If other persons or pets are in the area of welding, use welding screens to protect bystanders from sparks and arc rays.



A WARNING CUT HAZARD!

• Handling sharp metal can cause serious cuts. Wear thick, well-fitting work gloves to prevent cuts from handling sharp metal.



A CAUTION BURN HAZARD!

- · Welding heats metal and tools to temperatures that will cause severe burns!
- Use protective, heat resistant gloves and clothing when using Eastwood or any other welding equipment. Never touch welded work surfaces until they have completely cooled.



A CAUTION INJURY HAZARD!

- Grinding and sanding will eject metal chips, dust, debris and sparks at high velocity. To prevent eye injury wear approved safety glasses.
- Wear an OSHA-approved respirator when grinding or sanding.
- Read all manuals included with specific grinders, sanders or other power tools used before and after the welding process. Be aware of all power tool safety warnings.

ASSEMBLY

For best results and proper alignment of components, The HotCoat Powder Coating Rack should be assembled on a welding fixture table, or other flat surface suitable for welding. The following process outlined below describes the recommended steps for best results when assembling.

To avoid weld-draw, resulting in distortion or twisting of the assembly during construction, the assembly, tacking and welding sequences MUST be followed carefully.

CLEAN AND PREP THE PIECES

- Using a welding safe cleaner, Eastwood Low VOC PRE #11949Z or equivalent, wipe down the ends of the tubes for welding.
- For maximum weld penetration and strength, the tube ends should be ground to clean, bare steel (FIG 1).

TACK WELD THE BASE

- Align the two 30" and two 37" pieces into a 33" x 37" rectangle (FIG 2).
- Use a Welders Square to achieve true 90° corners. Usage of a 90° welding magnet as shown is strongly recommended (FIG 3).
- If using a fixture table all corners can be aligned at once and then clamped in place.
- Once aligned, place a tack weld on two different sides, recheck alignment and continue until the base is fully tacked together.

A NOTICE

To provide a smooth, level surface for Caster attachment several steps later, it is best to leave the bottom surfaces of the tubes weld free.







TACK WELD THE UPRIGHTS

- Measure 16.5" from one end of the base, (along the 30" side pieces) to the centerline (**FIG 4**), place equal scribe lines on both sides (**FIG 5**). This is where the centerline of the 58.75" upright piece will be placed.
- Align one 58.75" piece perpendicular to and flush to the inside of the base tube at the scribe line.
- Use a 90° welding square and welding magnet to position and hold it vertical (FIG 6).
- Place a tack weld on two sides and recheck the alignment. Repeat this process for the second upright 58.75" piece.
- Next, the single 37" piece can be used to connect the two tacked uprights. Place it on top and align it to be flush with one of the 58.75" pieces. Tack it in place once aligned.
- Repeat this process for the other side.
 NOTE: There can be no less than 34" between the upright pieces or the HotCoat Hanger Plate will be difficult to fit. It is recommended to test fit this piece once the tack has been placed (FIG 7).
- Locate the HotCoat Hanger Plate by aligning it flush on the top and sides and inset 0.71" to the face of the rack for centered alignment (FIG 8). Place one tack on each side and two on the top once aligned satisfactorily.











TACK WELD THE CASTERS

- Rotate the assembly to expose the underside of the base.
- Locate a caster square and flush with the outer corners of the rack and tack it in place (FIG 9). Repeat for the remaining three casters.
- With the unit completely tacked together, the welds can be finished to give full strength and durability.

FINISH WELDING OF THE POWDER COATING RACK

A NOTICE

To avoid weld-draw, resulting in distortion or twisting of the assembly during final welding, the welding sequences MUST be followed carefully.

- Finish weld the base corners by starting with one, then alternate to the opposite corner (FIG 10).
- Weld an adjacent corner then move to the opposite corner.
- Finish weld one base to upright joint then move to the other side (FIG 11).
- Place several partial length beads on either side of the HotCoat Hanger Plate (FIG 12).
- Weld one Caster on the top inside and on the bottom (FIGS 13 & 14).
- Move to the opposite Caster.
- Next, weld an adjacent Caster.
- Finish up with the opposite Caster.
- The HotCoat Powder Coating Rack in now ready for use.













 If you have any questions about the use of this product, please contact

 The Eastwood Technical Assistance Service Department: 800.343.9353 >> email: tech@eastwood.com

 PDF version of this manual is available at eastwood.com

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