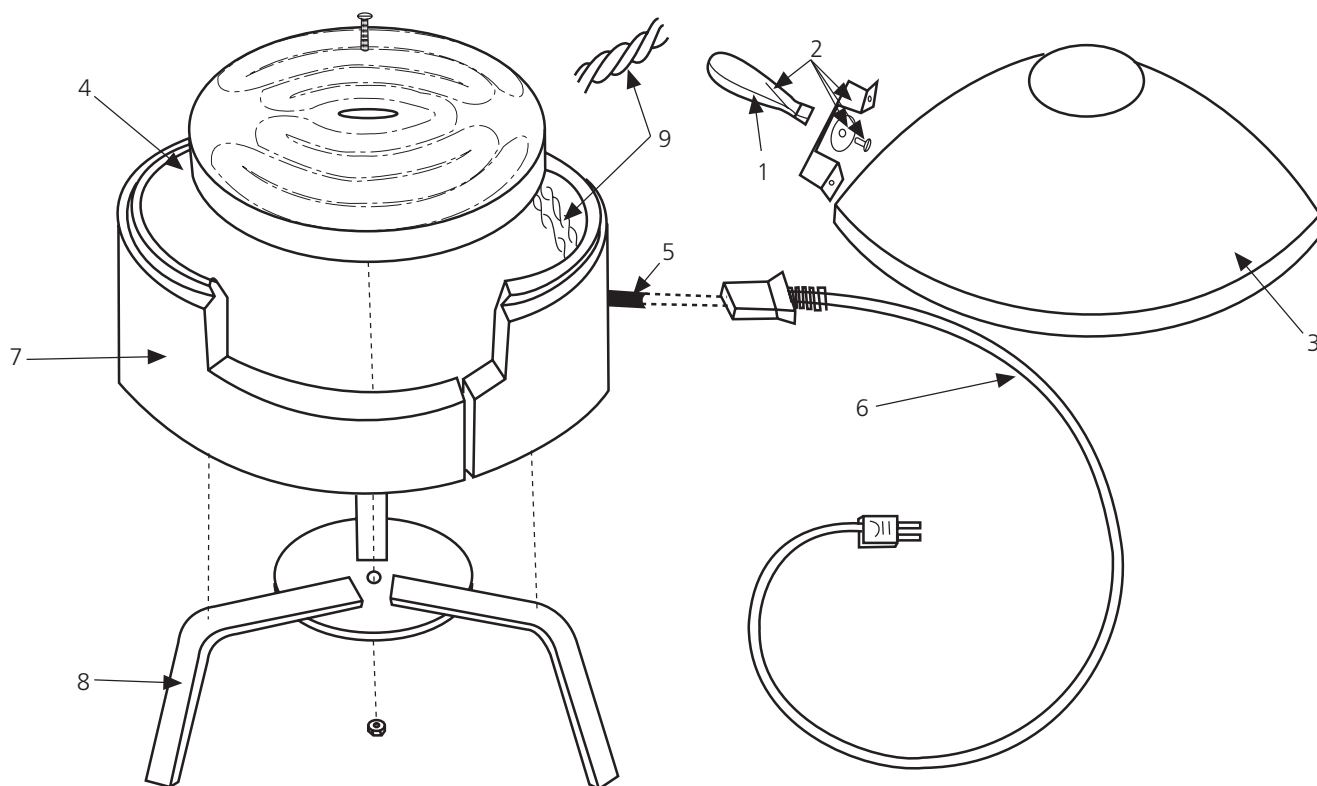


AMACO® Fine-Art Metal Enameling Kiln FA-5-E

120 Volts AC



AMACO® FINE-ART METAL ENAMELING KILN No. FA-5-E

GENERAL INSTRUCTIONS

Place the kiln on a **heat resistant** surface such as metal or marble. Never set it directly on a wood, varnished, painted, or formica surface. Be sure that ceramic fiber rope is positioned around the element terminals to prevent accidental contact between enameling tools and possible shock.

This kiln, specially constructed for metal enameling, has a 900 watt heating element and consumes about the same amount of current as an electric iron. The kiln operates on a 110-115 volt AC circuit. A lower voltage will result in slower heating, while a higher voltage will result in faster firing and, ultimately, will shorten the life of the element. When disconnecting the kiln, always do so at the wall outlet. Always disconnect the kiln when not in use. It is much better to shut down and restart the kiln several times than to have the kiln active over long periods of time. Never leave the kiln unattended.

PREHEATING THE KILN

Preheat the Fine-Art Metal Enameling Kiln for about 15 minutes to reach an enameling temperature of approximately 1500°F (815°C). The element will be a bright yellow-orange color when the temperature is right for best enameling results. Because this unit heats so quickly, current is saved by operating it only when enameling, and this prolongs the life of the element.

APPLYING ENAMELS

Detailed directions for enameling on gold, silver, and copper can be found in the No. 7 Booklet "AMACO® Metal Enameling" supplied with this kiln. The beginning enamelist should read it carefully for an understanding of the complete enameling process — preparing the metal, applying enamels, finishing pieces, etc.

There is a speedy enameling process suitable for enameling small pieces on one side, which is not described in Booklet No. 7. Steps in this process are:

1. Coat shiny clean copper piece with enameling oil. No special scouring or acid cleaning is necessary.
2. With an 80-mesh screen or a scrap of nylon hose stretched over bottle opening, dust on a thin application of dry enamel. No metal should show.
3. Fire at once in a preheated kiln. Piece will smoke and flame briefly as oil burns out.
4. Cool on heat resistant surface.
5. Drop piece in AMACO® Metal Cleaner to remove oxidation scale, rinse in water, and dry.
6. Brush enamel surface with enameling oil and dust on the second application of dry enamel — recommended for depth of color and brilliance. This process is completed in a matter of minutes, and the piece is ready for finishing.

FIRING PROCEDURE

First, be sure that the kiln has been pre-heated to enameling temperature. As pieces are fired by conduction, place bare metal, or metal coated with Amacote, directly onto element except when counterenameling (enameling the back of a piece). Be sure that no enamel is on the bottom of the piece because the enamel will melt and cause the piece to stick to the element.

Firing Pieces Small Enough To Go Through the Kiln Opening. Use a long, thin and wide spatula with a wood handle to lift the piece through the kiln opening. Place the bare metal side directly onto the element and toward the center. No timing is necessary. Watch the piece through the kiln opening and remove it as soon as it is red hot and glossy. Pieces may be removed for inspection without causing harm. Put pieces that look bumpy, wrinkled or granular, back into the kiln immediately and fire until glossy and smooth. Do not overfire pieces. Firing time for small pieces is usually three minutes or less. Place red hot pieces on a heat resistant surface to cool.

COUNTERENAMELING

Counterenameling gives a more professional look to enameled pieces and prevents excessive chipping and cracking by equalizing the strain on the metal.

After one side is completely decorated and fired, the other side of a small piece is easy to counterenamel. If counterenameling by dusting on enamels, remember to use gum solution to coat the metal and also as an over spray with atomizer on the enameling application. When jewelry findings are to be applied with a soft solder, a bare spot must be left where they are to be attached.

Place the piece with counterenameled side underneath onto the metal stilts, which holds the piece by the edges. When the enamel is **completely dry**, place stilts and piece as a unit into the kiln using long tweezers or spatula. Counterenamel takes longer to fire because the piece is raised above the element. When the enamel on the bottom side becomes glossy, remove the unit from the kiln.

SOFT SOLDERING

This kiln can be used for attaching jewelry findings with soft solder when all enameling processes are completed. Place the enameled piece upside down on the top of the kiln. Watch for the solder to melt. Carefully remove the soldered piece from the kiln lid, and allow to cool.

ELEMENT CARE AND REPLACEMENT

Element Care: Element surface must be kept clean. Spilled enamel will quickly penetrate to the wire coil and cause failure. Also, element will become sticky and prevent removal of work piece. Grind away any spilled enamel with a wet grinding stone. Center bolt must be tight to prevent movement of element plate which will break wires at terminal. Do not apply kiln wash to element surface. Any surface coating will cause temperature build-up at wire surface and cause burn out. Always disconnect power supply when servicing kiln.

Element Replacement: If element stops heating, disconnect kiln. Check to see if connections are loose at terminals. If not, the element has burned out and must be replaced.

1. Remove nuts to disconnect wires at terminals.
2. Remove center bolt from element, then lift element out.
3. Place new element in firing chamber and align metal legs.
4. Install center bolt to hold element, bowl, and legs securely.
5. Place terminal loops over bolts that come through wall. Be sure wires do not cross or touch each other.
6. Place a nut on each terminal and tighten.
7. Replace fiber rope around exposed terminals.

REPLACEMENT PARTS LIST
AMACO® FINE-ART METAL ENAMELING KILN
FA-5-E

DETAIL NO.	PART NO.	DESCRIPTION	PARTS/ KILN
1	27337R	Handle (Only)	1
2	27336B	Handle Assembly	1
3	27335P	Cover or Lid W/O Handle	1
4	27333M	Element Assembly	1
5	27345A	Heater Pins, Set of 2 Pins	1 Set
6	+	Cord, Supply	1
7	27341H	Bottom Burner Bowl	1
8	27343X	Tri-pod Stand	1
9	27332L	Fiberfrax Rope - 5" Length	1

+ Standard Hardware/Electrical Item available locally.
Prices available upon request.



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