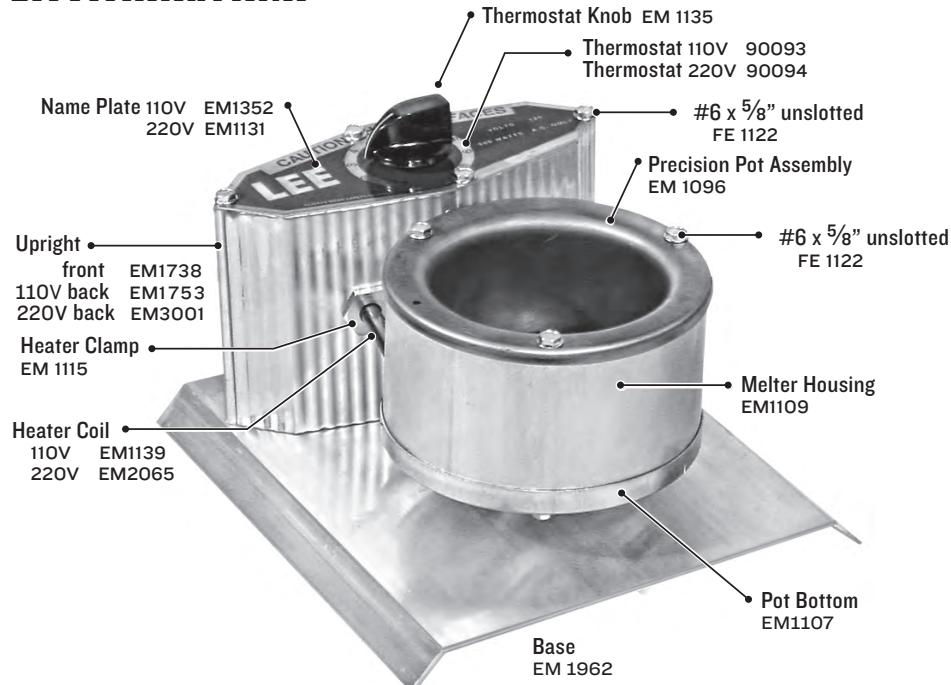


## Lee Precision Melter



## Troubleshooting

Should the valve not pour when the knob is raised, it's most likely caused by the heat being set too low. If you are sure the metal is hot enough the spout is likely plugged with sediment. With the melter at operating temperature, hold a straightened paper clip with a pliers and feed the wire up the spout opening to force out the obstruction.

Should the valve drip, simply rotate the valve rod back and forth with a screwdriver, also check the valve linkage for binding due to corrosion or damage. If the above does not stop the drip, drain the pot and remove the valve rod and clean with worn emery paper.

### Never pound on the end of the valve rod to try to stop a leak.

Don't risk handling molten metal in a makeshift container. Use the Lee Ingot Mold to cast 1/2 and 1-pound ingots. Perfect for remelting and alloying. Wood handle stays cool. Aluminum construction is lightweight and rustproof.



INGOT MOLD  
Part #90029

LEAD LADLE  
Part #90026

**LEE**

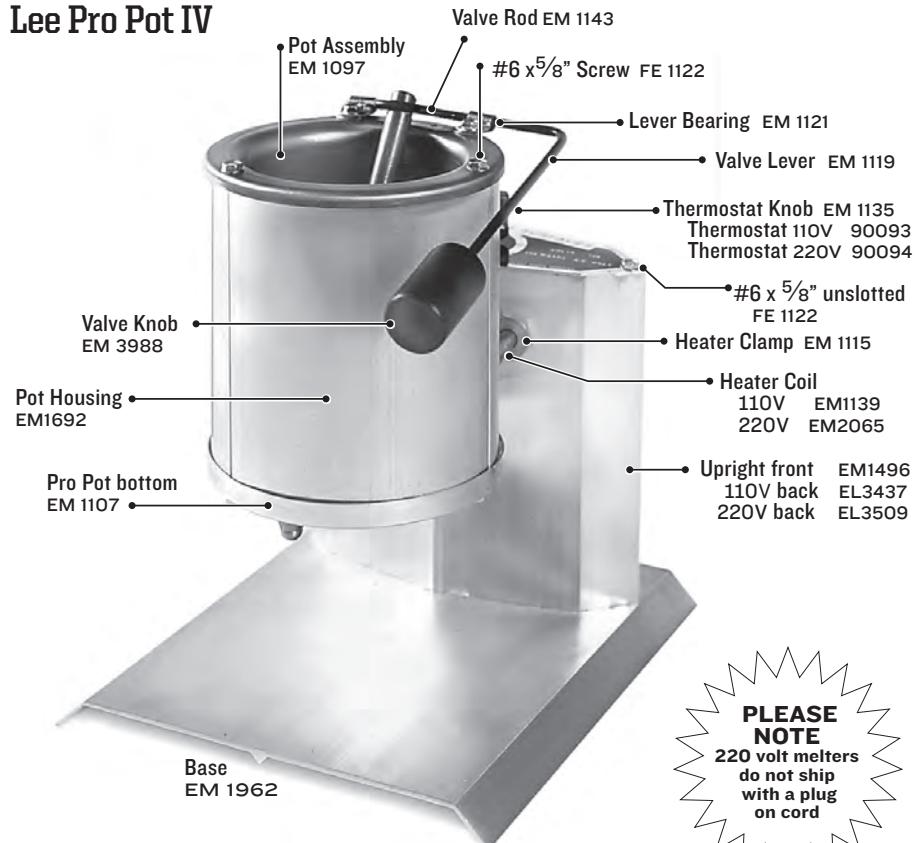
LEE PRECISION, INC.  
4275 Hwy U · Hartford WI 53027  
[www.leeprecision.com](http://www.leeprecision.com)

# LEE ELECTRIC MELTERS

are the most advanced design melters made.

The symmetrical reflective housing allows quick melting with low current requirements. The pour spout is up front where it's convenient to use.

## Lee Pro Pot IV



**PLEASE  
NOTE**  
220 volt melters  
do not ship  
with a plug  
on cord

## Guarantee

**LEE PRECISION PRODUCTS** are guaranteed not to wear out or break from normal use for two full years or they will be repaired or replaced at no charge if returned to the factory. Any Lee product of current manufacture regardless of age or condition will be reconditioned to new, including a new guarantee, if returned to the factory with payment equal to half the current factory list price.

## CAUTION

**Be extremely careful not to get any water into the molten lead. Even a small drop will explode into steam and violently spatter hot lead.**

**Wear safety glasses while using.**

**Use only in areas of adequate ventilation. Air flow sufficient to carry away the smoke of an extinguished match is considered adequate.**

**Keep food and drink out of the work area. Wash hands before eating or smoking.**

**If the pot is allowed to cool full of metal the spout will likely drip during heat up. Be sure to place an ingot mold under spout to catch drips.**

**Never pound on the valve rod to stop a leak.**



**WARNING** Melting lead and casting lead objects will expose you and others in the area to lead, which is known to the State of California to cause reproductive harm and cancer. For more information, [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov). See instructions on REDUCING EXPOSURE supplied with product.

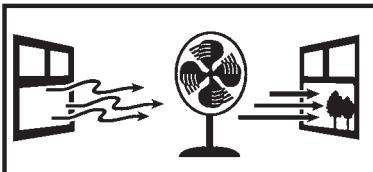
## Reducing Exposure

Lead contamination in the air, in dust and on your skin is invisible. Keep children and pregnant women away during use and until clean up is complete.

Risk can be reduced, but not eliminated, with strong ventilation; washing hands immediately after use of these products before eating or smoking; and careful cleaning of surfaces and floors with disposable wipes, after lead dust has had a chance to settle. Use a lead-specific cleaner with EDTA, or a high-phosphate detergent (like most detergents sold for electric dishwashers), and bag used wipes for disposal.

Promptly and properly dispose the dross or oxides skimmed off the molten metal.

### USE STRONG VENTILATION



### Rule of Thumb for Hardening Lead

For every 1% additional tin, Brinell hardness increases 0.29

For every 1% additional antimony, Brinell hardness increases 0.92

Sample equation:

Brinell = 8.60 Brinell Pure Lead + (0.29 x Tin percentage) + (0.92 x Antimony percentage)

For example, if you increase the amount of tin by 10%

and the amount of antimony by 5%, the Brinell hardness of your lead will be 16.1

Brinell hardness 16.1 = 8.60 + (0.29 x 10) + (0.92 x 5)

## Set Up

Place the melter on a stable work bench or table. Do not allow a fan to blow directly on the pot.

Route the power cord so it will not be tripped over or pulled by a child.

Place an Ingot Mold or small metal can under the pour spout during warm up. (Production pots only).

Fill the pot with desired casting alloy.

Set heat control to medium or higher and plug in.

## Directions

It will take about 20–30 minutes to heat 10 lbs. of metal to 600 degrees; line voltage greatly affects melt time. After the metal is melted, adjust heat setting to desired position. The markings are reference numbers only and do not indicate temperature. The high setting will stabilize at approximately 900° F. and the low about 450° F. Cast at the lowest temperature that will give good fill out. 650° F. is a good starting point.

As the valve spout ages, it may corrode or accumulate debris. Should your valve begin to drip, rotate the valve rod back and forth about 10° with a screwdriver. This will force out any debris or corrosion from between the valve rod and seat.

The metal should be fluxed whenever more metal is added to the pot. A small piece of wax about the size of a pea works well as a flux, be prepared for a flame when the wax is added to the pot. Stir the metal vigorously and scrape the sides and bottom of the pot to dislodge impurities, which will float and can be skimmed off and discarded properly.

PLEASE NOTE: These metals can not be melted in our melters

- GOLD • SILVER • ZINC • COPPER
- ZINC-BASED PEWTER • ALUMINUM

## Tips

When using a bottom pour pot leaving a thin layer of oxidized metal on the surface will cause no harm and will slow further oxidation of your metal. Flux and skim only after adding more metal to the pot.

Best mold fill out is obtained by holding the mold opening away and slightly off center of the pour spout. This causes the mold to be filled with a swirling action preventing voids in the casting.

Before storing your melter for extended periods, spray all steel parts with a silicon spray or a rust inhibitor like WD40.

Store your melter with about an inch of metal in the bottom. It speeds the next melt and reduces the likelihood of carrying surface contamination through the valve.

See helpful setup and operational videos on  
[www.leeprecision.com](http://www.leeprecision.com)