

*Protecting yourself and those working around you is
of #1 importance!!!*

**Always practice safe working habits.
Only work while relaxed, protected and clear-headed.**

Power and Hand Tools for Bronze

After the bronze has been cast, there are 5 steps to prepare it for Patina. Below are steps A—E for processing bronze castings, with (►) *required safety* conditions:

- A) **CLEAN** piece of *ALL* investment. Scrub off investment (or 'Pickle': 1 pt. vinegar to 3 pt. water);
Hand Tools: Picks, nylon or wire brushes: ► *Protect your eyes, nose, mouth and hands.*
Power Tools: Sandblaster with large air hose: ► *Protect your nose, mouth and ears.*
Sandblaster: For *final* removal of ceramic shell deep in texture or welding flux.
► **Always run exhaust, even when opening, until you are finished and have removed your work. Use dust mask or good ventilation.** Blasting is also effective for evening out bronze surfaces before patina.
- B) **CUT-OFF** gates within 1/8" of piece, leaving one large gate in place to secure in a vice.
Hand Tools: Vices with jaw pads; hack saws, bolt cutters: ► *Protect your eyes, nose, mouth and hands.*
Power Tools: Electric angle-grinders and/or reciprocal saw with extension cords: ► *Protect your eyes, nose, mouth, ears and hands. No loose hair or clothes.*
- C) **GRIND**, chisel or file off large blemishes, such as gates, bubbles and flashing.
Hand Tools: Vices with jaw pads; cold chisels with ball-peen hammers; files: ► *Protect your eyes, nose, mouth and hands.*
Power Tools: Pneumatic die-grinders, hoses; electric angle-grinders, ext. cords: ► *Protect your eyes, nose, mouth, ears and hands. No loose hair or clothes.*
- D) **WELD** pieces as necessary, including mounting attachments, following welding demonstration Instructions (see HO#8): ► *Protect your eyes, nose, mouth and hands.*
- E) **CHASE** welds and remainder of gates. Continue to refine surface for final Patina!
Hand Tools: Vices with jaw pads Cold chisels, files, rifflers, sand paper, Scotch Bright pads, pumice: ► *Protect your eyes, nose, mouth and hands.*
Power Tools: Pneumatic die-grinders with hoses; Electric angle-grinders with extension cords; Pedestal sanders and wire wheels: ► *Protect your eyes, nose, mouth, ears and hands. No loose hair or clothes.*