WELDING STUDS USING NELWELD STUD WELDER

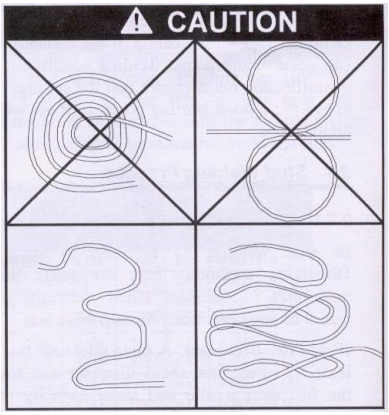
WORK THIS SAFE WORK PRACTICE IN CONJUNCTION WITH THE SAFE WORK PRACTICE FOR WELDING AND CUTTING FOR INFORMATION ON THE SAFE USE OF GAS CYLINDERS.

Work involving welding, cutting and burning can increase the fire and breathing hazard on any job. Mandatory PPE (Hard Hat, Safety Boots, Safety Glasses, Hearing Protection) must be worn.

- **In addition to mandatory PPE, (Hard Hat, Safety Boots, Safety Glasses, Hearing Protection), Flame Resistant Gauntlet Gloves (with no holes), a Welding Helmet and outer clothing to cover all exposed flesh must be worn as protection against burns, and radiation while welding.**
- **Outer clothing should be made of natural non-flammable (not synthetic) materials, kept dry and free of flammable stains. Pants should not be cuffed and should overlap safety footwear. Shirts should be long-sleeved with closed pockets.**
- **Contact lenses should not be worn.**

- **When ventilation is limited or when specialized alloys or galvanized steel are being welded check with the Shop Supervisor to determine the PPE required. Respirators are available.**
- **Do not weld where sparks and cutting slag will fall on cylinders, move all cylinders away from work area.**
- **Always have fire fighting or prevention equipment on hand before starting welding.**

- **Visually inspect the equipment including cables, contacts and power supply for any obvious damage. If in doubt, talk to your supervisor.**
- **Once a week, blow out the machine with a low pressure air line, including intake louvers, rear vent and cooling channels.**
- **It is not recommended to have the cables in a circular or coiled fashion when welding, This can create dangerous electromagnetic fields.**
- **When welding, position your head as far away from the welding plume as possible.**
- **Ensure people around you are reasonably protected from light radiation.**
- **Ensure there is reasonable ventilation in the area you are working.**
- **Do not work in wet areas.**
- **After your work is complete, switch off the equipment and remove the power plug.**
- **Store the unit safely.**



During welding, exposed metallic parts of the weld gun, such as the stud, chuck and all parts electrically connected to these parts, are carrying current. DO NOT TOUCH THESE PARTS WITH SKIN OR WET CLOTHES. IN ADDITION DO NOT WEAR JEWELRY such as rings or watches as this will increase the chance of electrocution.

- **In addition, watches may be damaged by electro-magnetic fields**
- **The Nelweld instruction manual will be kept in the foreman's office.**

Nelweld Operations and Service Manual

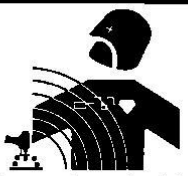
⚠ DANGER

ELECTRIC AND MAGNETIC FIELDS MAY BE DANGEROUS

- Electric current flowing through any current conducting material causes localized Electric and Magnetic Fields (EMF). Welding causes EMF around welding cables and welding machines.
- EMF may interfere with some pacemakers. Welders having a pacemaker should consult his or her physician before welding.
- Exposure to EMF generated while welding may have other additional health risks. These effects are currently unknown, but are under investigation.
- All welders should use the following procedures in order to minimize exposure to EMF from the welding circuit:
  - Route the gun and ground cables together and secure them together with tape, when possible.
  - Never coil the gun cable around your body.
  - Do not place your body between the gun and ground cables. If the gun is on your right side, the ground cable should also be on your right side.
  - Connect the ground cable to the workpiece as close as possible to the area being welded.
  - Do not work next to the welding power source. Maintain at least 3 feet between you and the welding power source.

ARC RAYS CAN BURN

- Use a face/eye shield with the proper filter and cover plates to protect your eyes from sparks and the rays of the arc when welding or observing open arc welding. Faceshield and filter lenses should conform to ANSI Z87. I standards.
- Use suitable clothing made from durable flame-resistant material to protect you. Any assistants should dress to the same standard as the primary welder.
- Protect other nearby personnel with suitable, non-flammable screening and/or warn them not to watch the arc or expose themselves to the arc rays, hot spatter or newly welded metal.



WELDING SPARKS CAN CAUSE FIRE OR EXPLOSION

- Have a fire extinguisher readily available.
- Remove fire hazards from the welding area. If this is not possible, cover them to prevent the welding sparks from starting a fire. Remember that welding sparks and hot materials from welding can easily go through small cracks and openings to adjacent areas. Avoid welding near hydraulic lines.
- Sparks and spatter are thrown from the welding arc. Wear oil free protective garments such as leather gloves, heavy shirt, cuffless trousers, high shoes, and a cap over your hair. Always wear safety glasses with side shields when in a welding area.

ELECTRIC SHOCK CAN KILL

- The gun and ground circuits are electrically live, or "hot," when the welder is powered and the gun trigger is pressed. Do not touch these "hot" parts with your bare skin or wet clothing.
- Wear dry, hole-free gloves to insulate hands. Insulate yourself from work and ground circuits using dry insulation. Make certain the insulation is large enough to cover the full area of physical contact between you and the work and ground circuits.
- Ground the workpiece to be welded to a good electrical (earth) ground using the ground cable.
- Always be sure the ground cable maintains a solid electrical connection with the metal being welded. The connection should be as close as possible to the area being welded.
- Maintain the welding gun(s), work clamps, welding cables, and welding machine so that they are in good, safe operating condition. Replace any damaged insulation.