



Protective Lining Products

Ameron T-Lock[®]

Sheet Lining System Welding, Repairing and Testing Instructions

Welding Ameron T-Lock

Ameron T-Lock sheets are joined by fusing a specially formulated weld strip over the butt or lap joints. The sheets are welded together at the joints using heat and pressure on the weld strip to obtain a continuous plastic liner. On flat surfaces, use Ameron T-Lock flat weld strip. For concrete tanks and structures, consult liner manufacturer for corner weld recommendations. A hand-held, hot air welding tool is used to fuse the weld strip over the joints. The procedure for fusing weld strip is as follows:

1. Clean the areas of the Ameron T-Lock sheets and weld strip prior to welding. Use a nonflammable, water soluble or dispersible cleaner such as Formula 409, or equal. Wipe dry.
2. Adjust the welding tool to provide a hot air temperature of approximately 500°F. The welding tool should be equipped with a 1-inch wide slotted nozzle.
3. Hold the welding tool in one hand at a 45° angle to the sheet surface. Holding the weld strip in the other hand, position it over the joint to be welded. See Note No. 6 for guidelines on weld strip positioning.
4. Move the welding tool in a fanning motion back and forth across the intersection of the weld strip and the sheet. The tip of the nozzle should be not more than 1/4 inch from the intersection as you fan it back and forth.

CAUTION – Use good quality gloves to avoid burning fingers when welding.

5. The hot air will cause the weld strip and sheet to soften, become tacky and appear to be wet or glossy. When this occurs, press the weld strip firmly down toward the

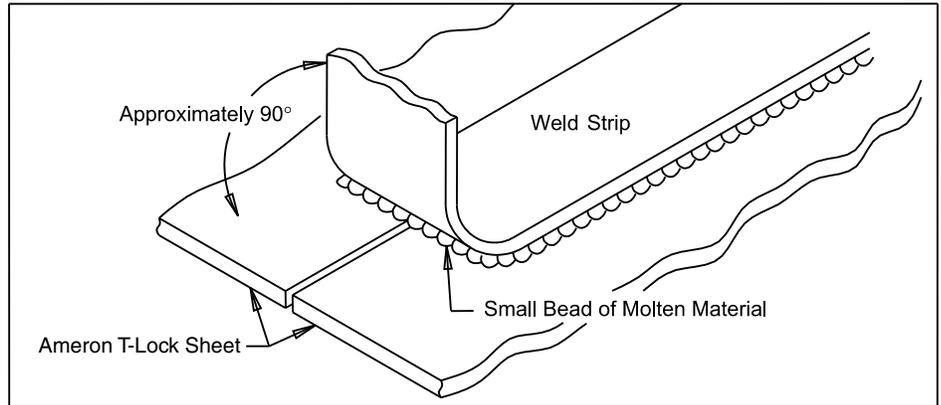


Figure 1. This figure details only a typical butt joint. The procedure for welding a lap joint is identical, except for the manner of positioning the weld strip.

sheet. A small bead of molten material will form in front of and on each side of the weld strip. (See Figure 1.)

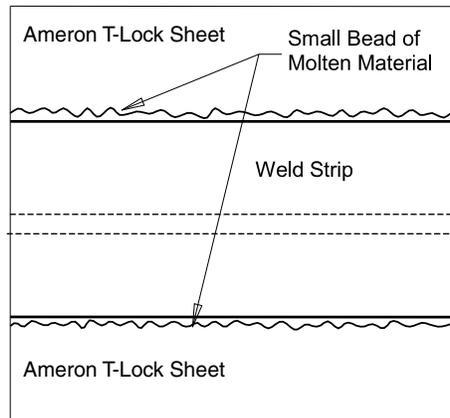


Figure 2. A small continuous bead of fused material should be visible along each edge of the weld strip.

6. When welding butt joints, keep the weld strip centered over the joint seams as the weld progresses. When welding lap joints, position the weld strip slightly off-center to provide more fusing on the bottom sheet than on the top sheet.

7. When properly welded, a small bead of molten material should be

visible and continuous along each edge of the weld strip. (See Figure 2.)

8. When welding Ameron T-Lock attached to concrete, apply the major portion of the heat to the base sheet in order to get proper fusion of the weld strip to the sheet.

Ameron T-Lock is permanently thermoplastic and may be rewelded at any time during its service life by following the procedure described above.

Repair Methods Small Holes, Cuts and Tie-rod Holes

Small holes or cuts in the Ameron T-Lock liner can normally be patched by welding a piece of flat weld strip over the hole or cut. Use 1-inch flat weld strip for patching nail holes and cuts. Use 2-inch flat weld strip for tie-rod holes or larger holes that 1-inch will not properly cover. To insure proper coverage the width of the weld strip must be at least 1/2 inch greater than the width of the hole to be patched. (See Figure 3.)

The procedure for patching small holes is as follows:

1. Start welding about 1 inch before the hole. Continue welding over the hole, centering the weld strip over the hole as closely as practical. See instructions in section on Welding Ameron T-Lock.

2. Weld about 1 inch beyond the end of the hole and trim the weld strip. When trimming the weld strip, be careful not to cut the sheet.

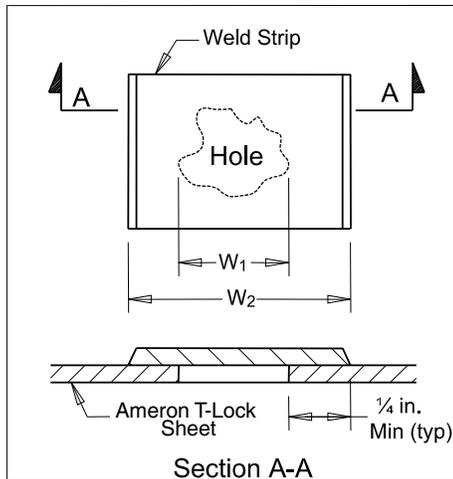


Figure 3. Small holes or cuts in the Ameron T-Lock liner can normally be patched by welding a piece of flat weld strip over the hole or cut.

Large Holes and Damaged Areas

Large holes and damaged areas can be repaired by carefully cutting out the damaged sheet, installing a new piece of Ameron T-Lock to fill the void and welding the seam with 1-inch weld strip. The procedure for repairing large holes is as follows:

1. Using a sharp knife, cut away any loose or damaged Ameron T-Lock.

2. Cut a piece of Ameron T-Lock Plain Sheet so that it completely covers the void area. The repair piece must be at least equal in thickness to the existing liner and must be butt or lap welded to the existing liner. (See Figure 4.)

3. Attach the repair piece to the void area using Ameron T-Lock 19Y Adhesive System. See Safety.

4. Weld the seam between the existing Ameron T-Lock and the repair piece using 1-inch wide weld strip.

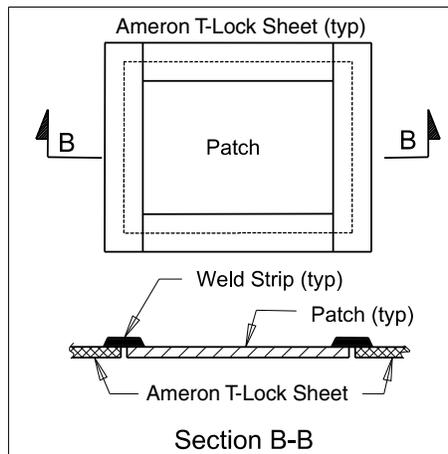


Figure 4. Large repairs are made by butt- or lap-welding a repair piece to the surrounding Ameron T-Lock sheet. Shown here is a typical butt joint. When making repairs using a lap-weld joint, provide a minimum of 1-inch overlap following normal lap welding procedures.

Placing flat weld strips side-by-side to patch larger holes is not recommended.

Testing

When installing and welding are complete, the entire lining and weld areas should be visually inspected and manually probed with a blunt instrument such as a putty knife, and then tested with an approved electrical holiday detector (Tinker & Rasor, Model No. AP-W with power-pak or equal) with the instrument set at 18,000 to 22,000 volts. Any imperfections must be repaired before placing the lining in service.

Safety

Fumes emitted during the welding of Ameron T-Lock have been tested as non-toxic. However, it is important to provide proper ventilation to move fumes away from the welder and proper venting and exhaust to remove fumes from confined areas to avoid any potential health risks. If proper ventilation cannot be attained, the use of respirator protection is recommended. See "Safety Precautions" Sheet.

Consult Code of Federal Regulations Title 79, Labor parts 1910, 1915 and 1916 concerning occupational safety and health standards and regulations, as well as any other applicable federal, state and local regulations on safe practices coating and lining operations.

Distributor for Leister Hot Air Welding Tool, Model 1G3, with Nozzle, Model 30A1: 40mm Wide Pressure Roller Model 22-D

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