

**Watering Facility (614) Appendix A: Stock Tank Ramp Design**

Ramps should be made of 14 gauge expanded metal x 3/4" maximum size openings for the ladder effect. A pattern can be made from sheet metal, and clamped on the expanded metal. The ramps can be cut with a cutting torch using the pattern as a template. One 4'x10' sheet of expanded metal will yield six ladders.

The design is somewhat like a diamond - the ramp length is  $\approx 28"$  and the "wings" to be bent down are  $\approx 32"$  across. See diagram below. The design can also be modified for rubber tire tanks by rounding the outer edge of the "wings" to fit against the curved side. Other modifications may need to be made to ensure the ramp extends to the bottom of the tank.

After cutting out the ramp, the metal is bent with a metal brake 4" between bends to make the sloped side or "wings" for the ramp. Consistent slopes and angles will make the ladders easier to stack and transport.

Steel rod (3/16") can be used to form the hangers for round rim and rimless tanks or the ramp can be bolted to the tank using two 3/8" bolts with washers. Another option for hanging is to leave a 3 - 4" tail on your diamond shape cutout making it more kite shaped. After bending the wings, bend the tail in a half-circle and use it as a hanger. See diagram below.

If desired, the ladders can be painted or dipped with a neutral color paint to prevent rusting. (*Be sure the paint is non-toxic after it dries!*)

