

Miraco Livestock waterers Express warranty and
Waiver of implied warranties and consequential damages

Express Warranty

Ahrens Agricultural Industries Co. , dba Miraco, expressly warrants that the Miraco waterers (excluding valve and valve parts) will be free of defects in materials and workmanship for a period of five (5) years from delivery. The Miraco valve and valve parts are warranted to be free of defects in materials and workmanship for a period of one (1) year from delivery. Such warranty does not apply to any Miraco unit that has been subjected to misuse, or material failure to install, operate or maintain in accordance with Miraco's written instructions, or other events acts or omission, including but not limited to acts of nature, which affect the Miraco unit materially and adversely and are not attributable to Miraco.

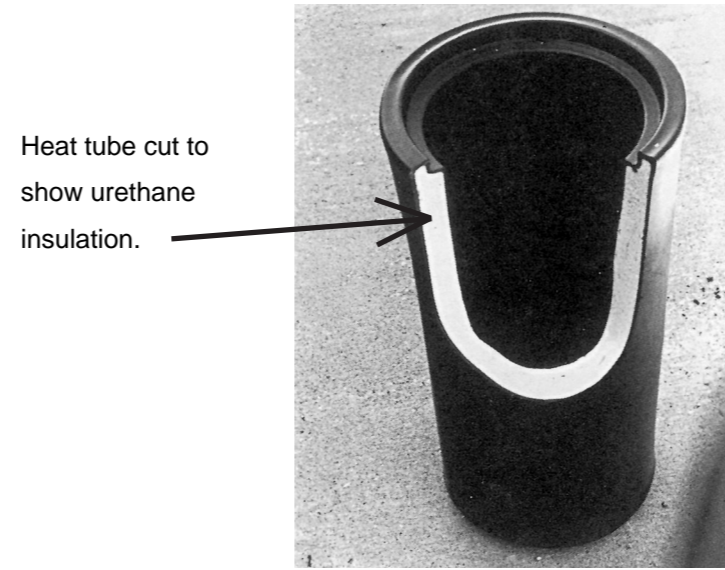
This warranty is limited to the repair or replacement of the defective part, at the option of Miraco. Such repair or replacement part is warranted only for the unexpired portion of the original warranty period. Buyers with warranty claims should contact their local dealer immediately.

Heaters in all electrically heated units are warranted for a period of one (1) year.

Waiver of implied warranties and
Consequential damages

Except for the above express warranty, this product is sold as is. Implied warranties of merchantability and fitness for a particular purpose, as well as special, indirect or

Insulated Heat Tube from **MIRACO**
Livestock Water Systems



Dimensions:

14" x 30" (35.56cm x 76.20cm) long

Insulation: 2" (5.08 cm) thick

Protect your underground water line from freezing with the new insulated heat tube from MiraFount. Proper installation is essential for trouble free operation in the winter.

14" (35.56cm) outside dimension and 10" (25.40cm) inside dimension allows for shut off valves and easy installation.



Normal installations will have (1) one insulated heat tube on top of a 12" (30.48cm) corrugated tile. This combination allows the top portion to resist cold and the bottom portion to gather earth heat.

The interlock design allows the insulated tube to interlock with the corrugated tile for easy installation.

Urethane foam installation is moulded in a water tight atmosphere to keep it dry in all times.



Northern regions may require a full 60" (152.40cm) of insulate tube and 30" (76.20cm) of corrugated tile on the bottom. The interlock design allows (2) two units to lock together and the design also interlocks with the two corrugated tile.

Keep Your Investment Above Ground Working Perfectly By Protecting
Your Underground Investment!



Miraco 2800-2900

Heater option

Part 160 - USA Heater Kit, 110 Volt - 250 Watt

Part 161 - EURO Heater Kit, 220 Volt - 250 Watt

INSTALLATIONS AND SPECIFICATIONS

READ CAREFULLY



A DIVISION OF
AHRENS AGRICULTURAL INDUSTRIES, INC.

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GRINNELL, IOWA 50112
PHONE 641-236-5822
TOLL FREE 1-800-541-7866
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2011 Specifications

Part 1 General

A. Description

- Lil' Spring is a multi-purpose waterer designed to be used with a 250 watt heater in cold climates or without in warmer climates.

B. Weights & Dimensions

Model #	Gallons / L	Description	Dimensions	WT.
2800 w Heater	4 Gal- 15.14L	multi purpose electric	16 1/2" x 20" x 19" (41.91cm x 50.8cm x 48.26cm) 19" (48.26cm) drinking height 25" (63.50cm) overall height.	30lb 13.60kg
2900 2901 w Heater	6 Gal- 22.71L	multi purpose electric	16 1/2" x 30 1/2" x 19" (41.91cm x 77.47cm x 48.26cm) 19" (48.26cm) drinking height 25" (63.50cm) overall height	46lb 20.87kg

C. Material necessary for installation

- concrete for the base
- teflon tape thread sealer
- Miraco #834 heat tube (recommended)

Part II Materials, Products

A. Materials

- High impact rockite, Polyethylene

B. Valve

- Miraco plastic valve

C. Float assembly

- Stainless steel arm and thumb screw w/Polyethylene 4" x 5" (10.16cm x 12.70) float arm.

- 3/4" (1.90cm) - 200 psi (13.79bar), rubber hose with PVC shutoff valve included.

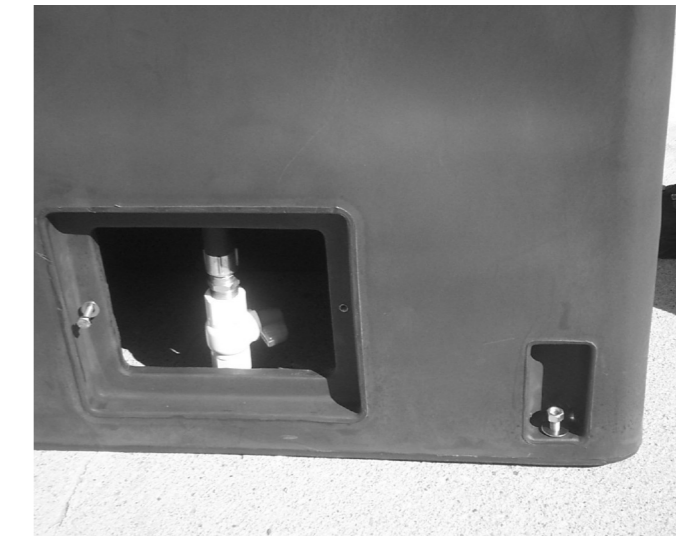
- Stainless steel 3/8" x 4" (.95cm x 10.16cm) concrete anchors included.



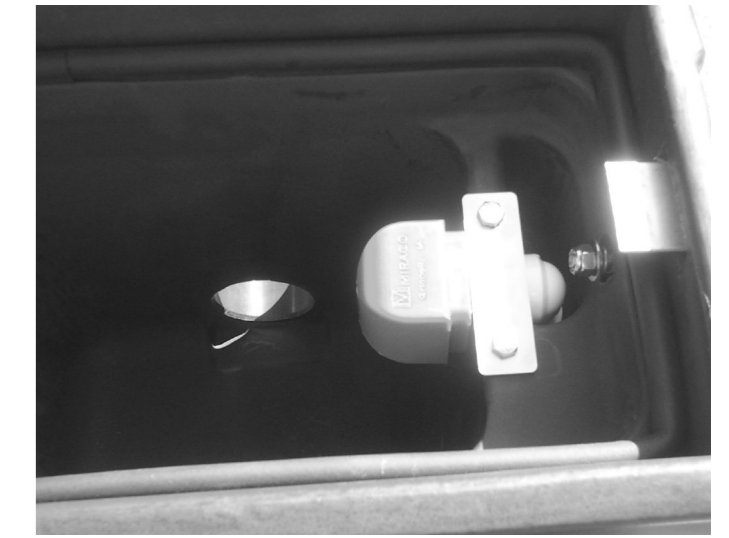
Step 1
Pull the paper off the back of the rubber gasket and stick to the bottom edge of the tank. This is important to keep out air and water.



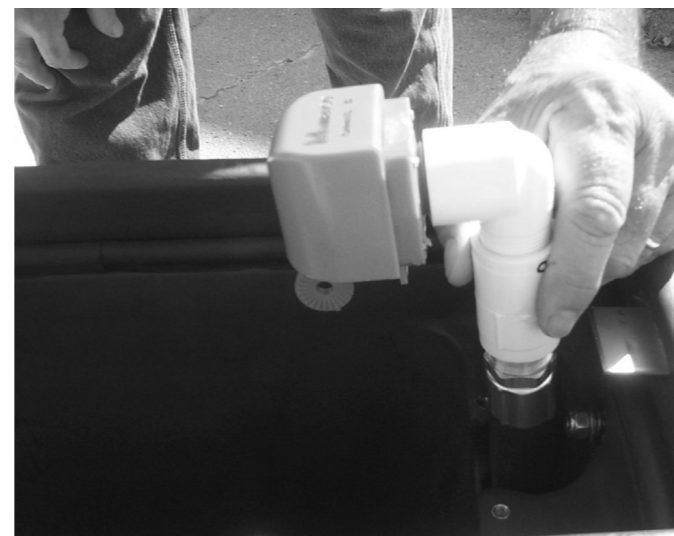
Step 2
Attach the rubber hose and shutoff valve assembly to your incoming water line. Use teflon tape on all fittings to prevent leaks.



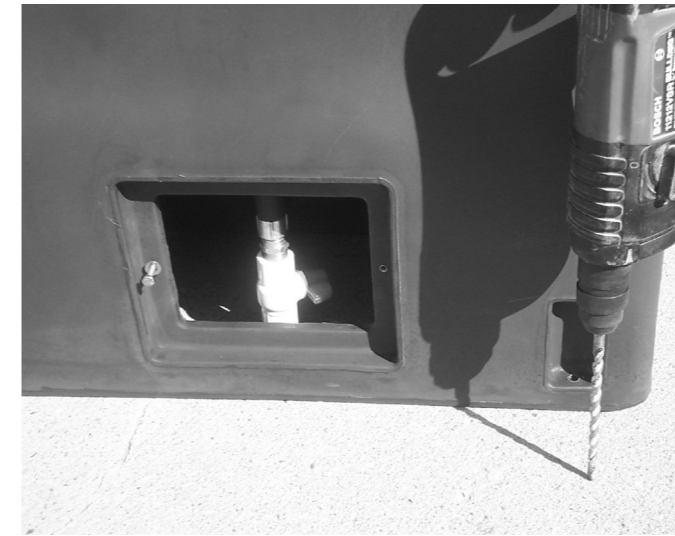
Step 5
After driving your anchor bolts into the concrete (be careful not to drive in too far), set the tank over the bolts and secure with nuts and washers.



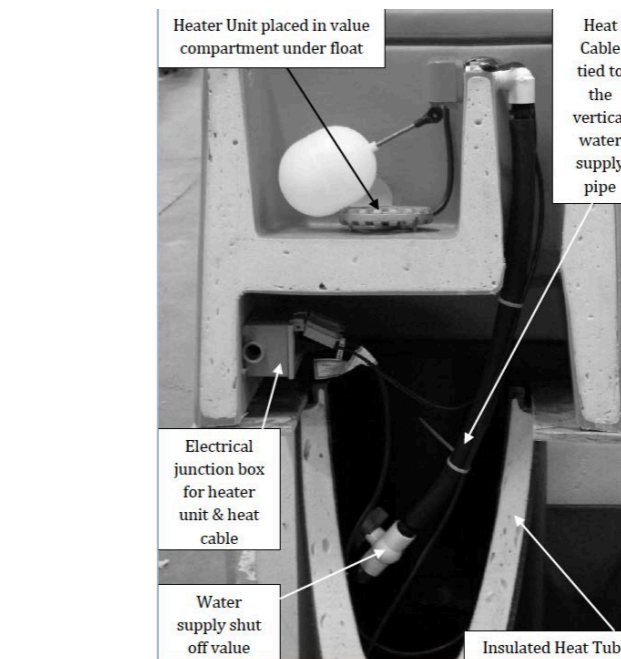
Step 6
Now push the valve assembly down into the molded cradle and secure with the stainless steel retainer and two-1/4" x 1" (.64cm x 2.54cm) bolts. Tighten until valve is tight.



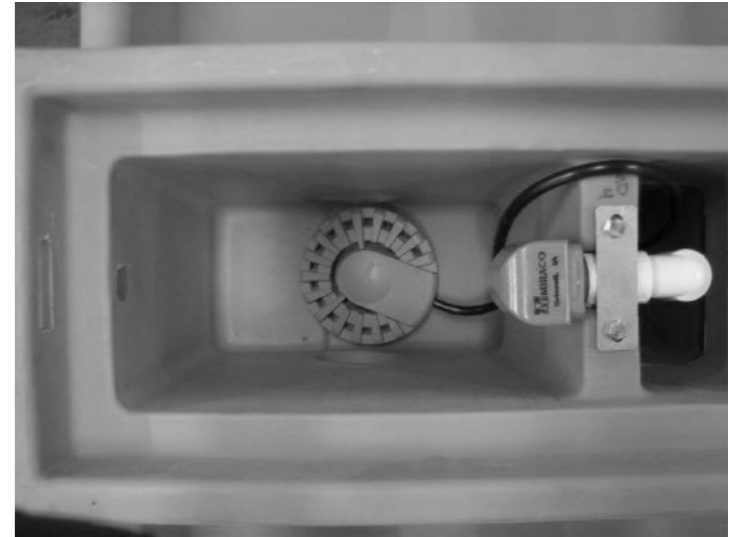
Step 3
After attaching your hose and shutoff valve assembly, lift the tank over the hose and feed the hose up through the small opening into the valve compartment. Attach the blue valve and PVC fittings to the hose. Use teflon tape on all fittings to prevent leaks.



Step 4
After marking anchor bolt locations with a pencil, drill four- 3/8" (.95cm) holes for the 3/8" x 4" (.95cm x 10.16cm) anchor bolts included in your parts package.



Step 7
Drop heat cable into the area next to the water supply line. Attach the heater cord to the nylon fitting as shown. The heat cable has a thermostat it should be positioned at the top of the PVC valve fitting.



Step 8
Lay your 250 watt heater in the bottom of the valve compartment. Put the plug down the opening into the area below the tank. This is where you plug in both the tank heater and line heater. Attach your float assembly to the valve and turn the water on and adjust your water level. During warm weather remove the heater and hang in a dry area.

*NOTE: When using the 250 watt Miraco heater, install with a properly grounded electrical line. The heater is to be placed in the valve compartment under the 4x5 (10.16cm x 12.70cm) bob float. The power cord is connected in the area where the water line is located.

Do not wrap on the line. Let the heat cord hang alongside the water line, and attach with nylon zip ties to the water line for best results.