



NOTICE:

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References to any other company affiliations are no longer valid.

"L" Heat Exchanger Tube with Reflector, Option UC2

Applies To: **Model VR**

**Description/
Application**

The "L" shaped heat exchanger tube is used to adapt a Model VR tubular radiant heater to a specific location. The "L" heat exchanger tube may be installed in any length of system from 20 to 70 feet. Comply with the following requirements in positioning the "L" tube:

- **Sizes 100, 125, and 150 require** 20 ft (6.1M) of straight tube length before installing an optional "L" tube.
- **Sizes 175 and 200 require** 30 ft (9.1M) of straight tube length before installing an optional "L" tube.
- Use no more than two "L" tubes in a system.
- Optional 5-ft tube(s) may be used in a layout with an "L" tube.

The "L" shaped heat exchanger tube option includes a reflector which must be field assembled and installed.

FIGURE 1 - Option UC2 Components

Option UC2, Package P/N 205217, includes:			
Code	Qty	P/N	Description
"L" Tube and Reflector Parts			
1	1	205218	"L" Heat Exchanger Tube
2	1	268219	"L" Reflector Side
3	1	268225	"L" Reflector Half Right
4	1	268226	"L" Reflector Half Left
	1	120677	"L" Tube Reflector Bracket (shipped in parts bag below)
Coupling and Hardware for Tube Connection			
5	1	205546	Compression Coupling
	2	37661	#10x1/2" Self-drilling Screws (shipped in parts bag below)
Wire Reflector Retainer, Hanger Bar, Tube Bracket, & U-Bolt			
6	1	209321	Wire Reflector Retainer
	1	209322	Hanger Bar
	1	205586	Reflector Bracket
	1	131785	U-Bolt w/Brass Nuts (in parts bag below)
"L" Tube Kit Hardware Bag, P/N 205723, includes items below plus the items above that indicate they are shipped in the parts bag:			
Hardware for assembling and attaching "L" tube reflector			
	15	113275	Screws, #10-32 x 1/2" long
	15	26490	Nuts, Kep #10-32
	2	113807	Washers
	1	120716	1/2" Stainless Worm-drive Clamp
	2	196336	Clip-on, spring steel Receptacle Nut
	2	11813	#10x1/2" Sheetmetal Screws

WARNING

Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury or death. Read the installation, operation, and maintenance instructions thoroughly before installing or servicing this equipment.

**Installation
Instructions**

**Reference Heater
Installation Manual,
Form I-VR**

Installation should be done by a qualified agency in accordance with these instructions and in compliance with all codes and requirements of authorities having jurisdiction.

1. Install the burner/control box, combustion chamber tube, and any heat exchanger tubes before the "L" tube. Carefully read and follow the instructions in the heater installation manual.
2. **Turbulator Strip Sections** - If the "L" tube is adjacent to the exhaust heat exchanger tube and the heater is 40 to 70 feet in length, install two sections of the turbulator strip in the straight heat exchanger tube before attaching the "L" tube.

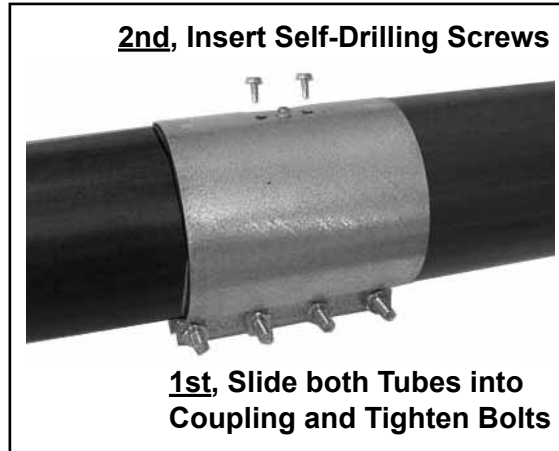
Installation Instructions (cont'd)

FIGURE 2 - Use the coupling to connect the "L" tube.

NOTE: Before installation, wipe any excess corrosion inhibitor from the heat exchanger tubes. Failure to do so could result in excessive smoke from the surface of the tubes on initial startup.

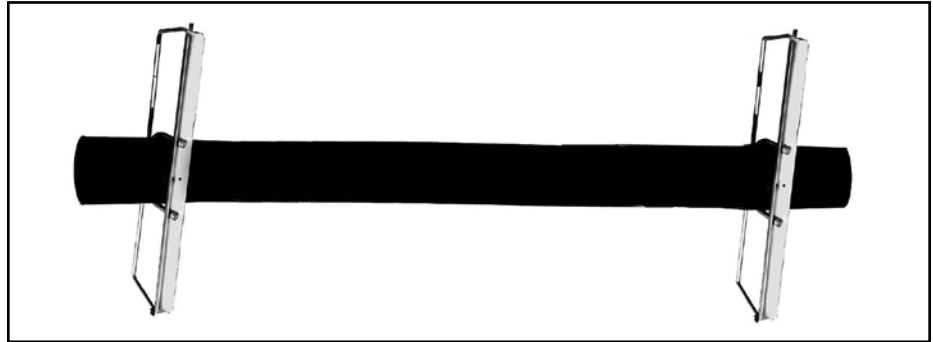
Follow the instructions in the heater installation manual for inserting turbulator strips.

- 3. Connect the "L" Tube** - Use the compression coupling in the kit to attach the "L" tube following the same procedure as the straight tubes.



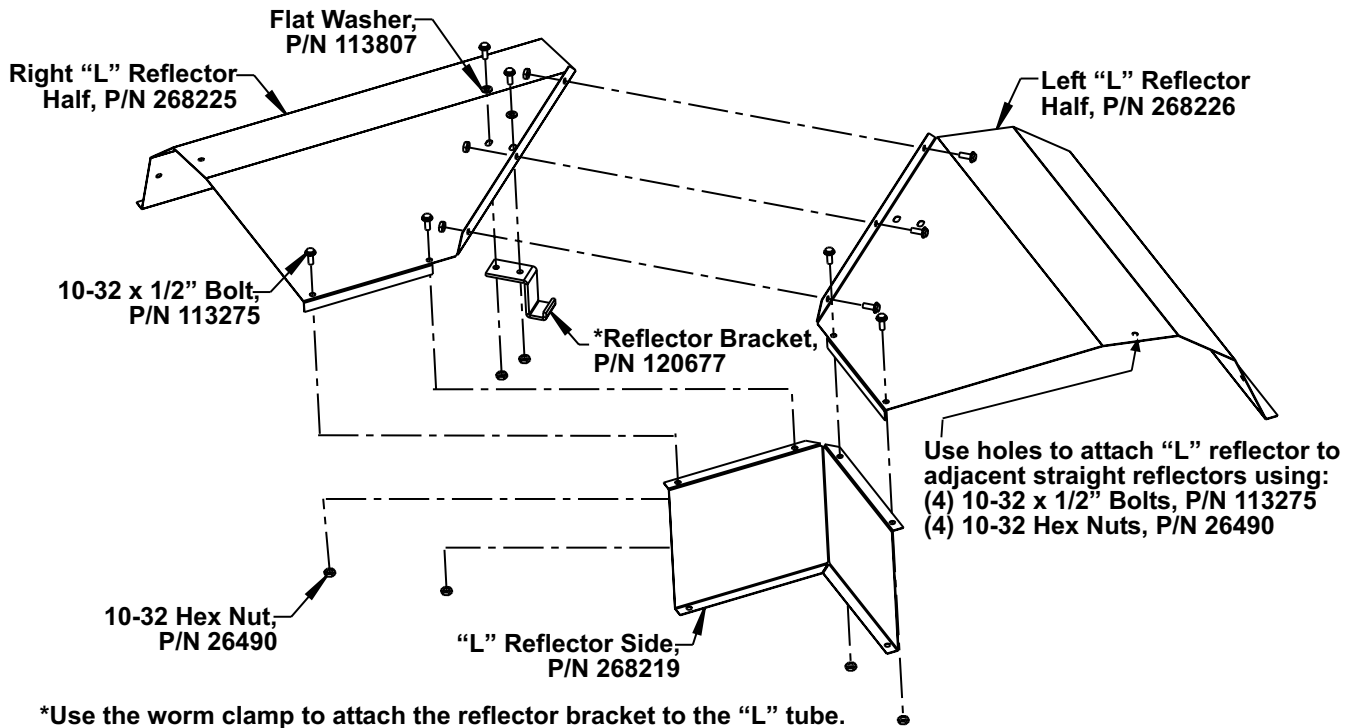
- 4. Install the tube downstream of the "L" tube.** The downstream tube adjacent to the "L" tube requires two suspension points. Attach two tube brackets to the tube (**FIGURE 3**). Attach the wire reflector retainers. Suspend from the hanger bar in both locations.

FIGURE 3 - Bottom view of the downstream heat exchanger tube adjacent to the "L" tube. Attach two tube brackets and wire reflector retainers. Suspend from the hanger bar in both locations.



- Following the layout, suspend and connect the remainder of the tubes according to the instructions in the heater installation manual. The tubes adjacent to the "L" must be at right angles. All tubes must be level.
- 6. Install Straight Reflectors between the Burner/Control Box and the "L" Tube** - Starting at the burner/control box, follow the instructions in the heater installation manual to install the straight reflectors before the "L" tube. Be sure to comply with all requirements.
 - Leave 1/4" (6mm) space between the first reflector and the burner/control box.
 - Use screws to attach the first reflector section to the first tube bracket
 - Use clips and screws to join reflectors
- 7. Assemble "L" Tube Reflector** - Assemble the reflector top and sides and attach the reflector bracket as illustrated in **FIGURE 4**.

FIGURE 4 - Use the hardware provided to assemble the reflector and attach it to the "L" tube and the adjacent reflectors.



8. **Install the Assembled "L" Tube Reflector** - Position the assembled reflector on top of the "L" tube with the bracket at the center of the bend in the "L". Locate the two holes on the assembled reflector where it overlaps the adjoining straight reflector. Mark the holes on the straight reflector. Remove the "L" reflector assembly and carefully drill 7/32" holes in the straight reflector. Unfasten the worm clamp. Re-position the reflector on top of the tube with the bracket at the center of the "L". Wrap the clamp around the "L" tube attaching the reflector bracket. Fasten the clamp to hold the reflector in place but do not tighten. Use screws and nuts from the kit to attach the side of the "L" tube reflector assembly to the adjacent straight reflector. Tighten the clamp to secure the reflector to the "L" tube. Use the clips and screws in the kit to attach the flange of the "L" reflector side to the straight reflector following the same procedure as used when joining two straight reflectors.
9. **Install the Next Adjacent Straight Reflector** - Position the reflector in the wire retainer. Mark and drill holes to attach it to the side of the "L" tube reflector. Use screws and nuts from the kit to attach the straight reflector to the "L" tube reflector. Join the flanges with the clips and screws shipped with the straight tubes and reflectors. "L" tube and adjacent reflectors cannot be angled.
10. Complete the installation by following the instructions in the heater installation manual.

