

## **Installation Procedures**

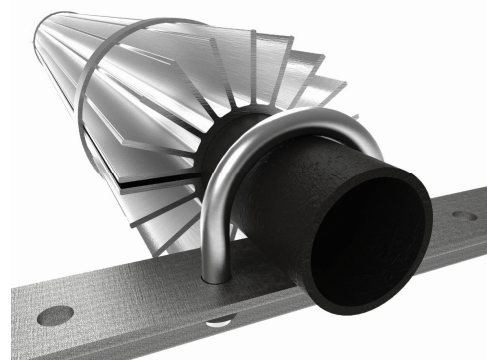
The simplicity of QFin™ is one of its many benefits. As with any system, if not properly installed, it may not function as intended. Therefore, it is important to review and follow these procedures and inspect the system to ensure a successful application.

### **Required Equipment:**

- QFin Straight Lengths
- QMax Industries, Inc. approved installation banding, buckles and tool (normally supplied with system)
- QMax Industries, Inc. approved Heat Transfer Compound (normally supplied with system)
- QFin HTC applicator tool (always supplied with system)
- May require: Aluminum cutting tool (band saw is preferred)

### **Step 1: Preparation:**

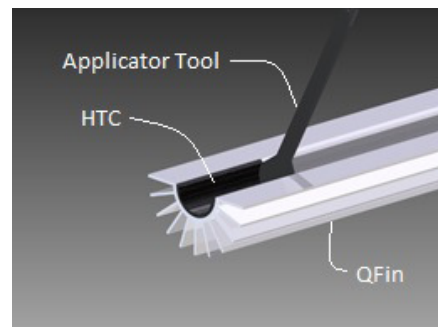
- 1) Verify the QFin matches the carrier pipe/tube (**Image A**). QFin should closely match the outside diameter.
- 2) Clean any debris from the outside of the pipe and inside of the QFin. Pipe surface must be clean to maximize thermal contact.



**Image A**

### **Step 2 - Installing QFin:**

- 1) Stage the QFin lengths before applying the Heat Transfer Compound to ensure an efficient installation. This means placing the proper QMax parts at the location of each pipe fitting and the proper length of QFin straight sections to match the length of piping.
- 2) Apply QFin in the following sequence:
  - a. If applicable, measure and cut the QFin lengths using a suitable aluminum saw (portable band saw with aluminum cutting blade works well). Remove any sharp edges after cutting to ensure a safe working environment.
  - b. Apply Heat Transfer Compound to the inside surface of QFin using the applicator tool (**Image B**). The QFin applicator will apply the proper amount of compound in all areas of the QFin. If the HTC does not apply well, score the inside of QFin with a wire brush or sand paper and reapply.
  - c. Always apply HTC above 60 degrees F ambient. If not practical, warm the HTC and QFin before applying.
  - d. Install QFin over the pipe/tube by hand. Any obstructions which may prevent the QFin from properly mating with the pipe or tubing should be removed to ensure optimum performance.



**Image B**



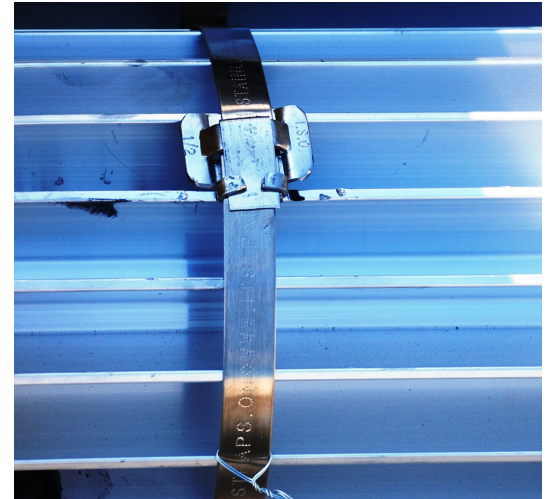
- e. Secure the QFin into place using QMax Industries, Inc. approved installation hardware (**Image C**):

1. 1/2" SS Banding
2. 1/2" SS Buckles
3. Installation Tool  
(Ratchet type tools are also available)

- f. Install banding as follows:

1. Maximum 36" between each individual band
2. Maximum 6" from each end of the QFin

- g. Tighten QFin until Heat Transfer Compound is squeezing out the ends and seam (**Image D**). The tighter the fit between QFin and the pipe/tube, the better the system will perform. Recapture and reuse the Heat Transfer Compound that is not directly under the QFin.



**Image C**

### **Step 3 - Inspection:**

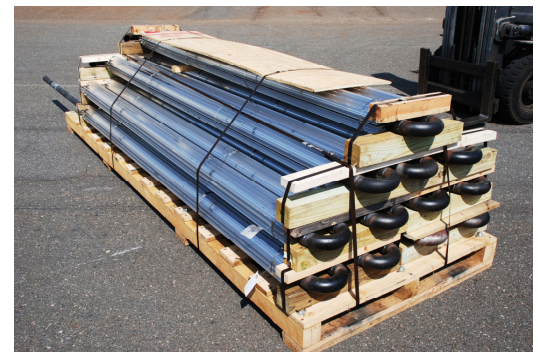
- 1) Inspect for secure installation of the entire system. Installation guidelines may vary with each project. Allow 1/2 inch gap between each QFin piece for thermal expansion of the system.
- 2) If applicable, safely load QFin for shipping by supporting the pipe / tube with 4 x 4 sections of wood (**Image E**).
- 3) Consult your QMax representative if any section of pipe or equipment has more than a 2-inch gap between QMax components.



**Image D**

### **Detail Notes:**

- 1) QMax installation instructions and detailed drawings should not replace plant standards without plant consent.
- 2) Details above are offered as general guidelines and should not be used to defy logic.



**Image E**