Micro Control Systems
APPLICATION NOTE
APP-059

Installing a MCS-T100 Temperature Sensor

Revision History

Date	Author	Description
03/29/10	John Walterick	Created Application Note

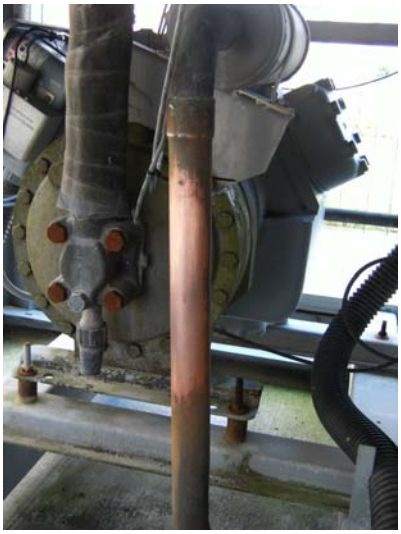
1. General Concept

Install temperature sensor to achieve rapid temperature changes and allow system to calculate suction and discharge superheat quickly and correctly.

2. Sensor Location

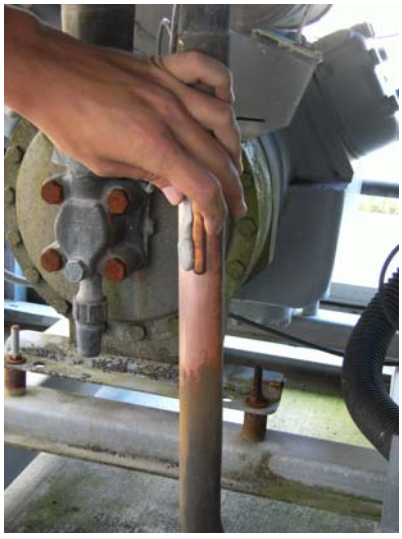
a. Suction location of tube & sensor.
   Install tube at 3:00 or 9:00 with opening slightly angled up.
b. Discharge location of tube & Sensor.
   Install tube at 12:00.

3. Tube Installation



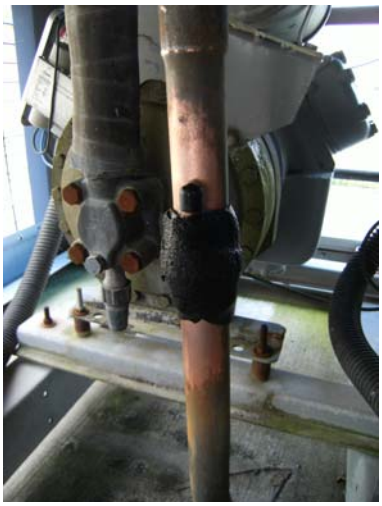
Step1:

- Select section of pipe where you want to mount MCS-Tube.
- Sand pipe to get good clean surface for mounting.



Step 2:

- Cut MCS-EPOXY into 3 pieces.
- Mix 1 piece of epoxy.
- Roll Epoxy into length about same as Tube.
- Holding Tube on pipe place rolled epoxy next to tube.
- Next squeeze epoxy around & over tube.



Step 3:

- After epoxy has hardened (about 20 to 30 minutes) insulate tube. Start just below plastic cap and wrap down and then back up. This provides a double layer of insulation thus eliminating outside effects on temperature.

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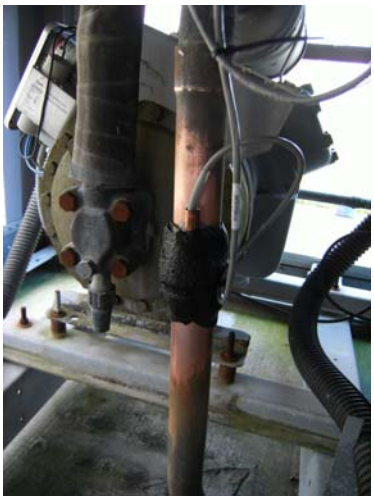

Step 4:

- Remove plastic cap
- Insert Temperature sensor until it is completely inserted.
- Bring sensor cable down over tube insulation and tie wrap to insulation.

You now have an insulated tube with transfer paste inside the tube. You have also created a strain relief and tied the cable so it’