



BY JOHNSON CONTROLS

# Service Information

File In/With: N/A

SI0229

New 810

Equipment Affected: AIR COOLED CHILLERS

PROCEDURES TO FOLLOW WHEN REMOVING A DEFECTIVE THERMAL EXPANSION VALVE (TXV)

## GENERAL

It is very important that care be exercised when removing components and packaging them before they are returned to the Warranty Return Center. Receiving a component in a condition that allows it to be functionally tested enables root cause problem identification and corrective action. TXV removal is of particular concern, since many types of new valves now utilize stainless steel capillary tubes. The stainless steel tubes, while more rugged and robust, are more sensitive to heat. During removal of the valve, if the torch flame is brought near the stainless steel capillary tube, it will cause it to break.

Below are some examples of capillary tubes that were broken due to heat contact during the valve removal process. Evidence of heating from the torch flame on the power head is visible.



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## TXV VALVE REMOVAL

When removing thermal expansion valves with stainless steel capillary tubes, be very careful to ensure the capillary tube is positioned away from the torch flame. Unstrap the bulb and capillary tube from the piping and coil it near the power element before beginning. Move the coiled cap tube from side to side or up and down as needed to avoid flame contact when unbrazing the inlet and outlet connections. Use a small heat shield whenever possible to cover the cap tube and the power head. Since stainless steel is much more resistant to breakage from flexing than copper cause it to break during the unbrazing of the valve.