

Technical Bulletin: 1/4" Copper Tube Failures

Rev.: 26 Feb 2016
P/N: TB16.003

In regards to the breaking 1/4" copper tubes and lack of braze fill material issues that were originally communicated to Enertech customers on 2/10/2015: After 1 full year of data collection there is now an accurate picture of the affected manufacturing date range for suspect units and associated failure rate. Units that were manufactured between March of 2014 (S/N M1403****) and February of 2015 (S/N M1502****) should be considered suspect for either one of the issues detailed below. Analysis of available warranty data has indicated that one or both of these failures have been discovered and repaired in approximately 4% of the units built within that time period.

Note, depending upon the type of unit, there could be up to 7 suspect braze joints (2 factory process ports, 1 HP switch, 1 LP Switch, 1 TXV equalizer tube & 2 service/access ports) in each of the affected units. **If a contractor has the unfortunate task of repairing one of these leaks, it is strongly encouraged that all of the 1/4" copper tube joints are inspected and repaired while the unit is being serviced.** The standard labor reimbursement still applies and any questions should continue to be directed to Enertech Tech Support at 618-664-5860.

04/06/2015

On February 10, 2015, Enertech released a bulletin highlighting the discovery of a quality issue regarding breaking 1/4" copper tubes. During the investigation into this issue, it became apparent that there is an additional quality issue regarding the amount of fill material used on braze joints. In some cases, brazing operators failed to apply enough fill material to ensure a solid joint. This has mostly been reported on 1/4" lines containing the bead stop. See picture below.

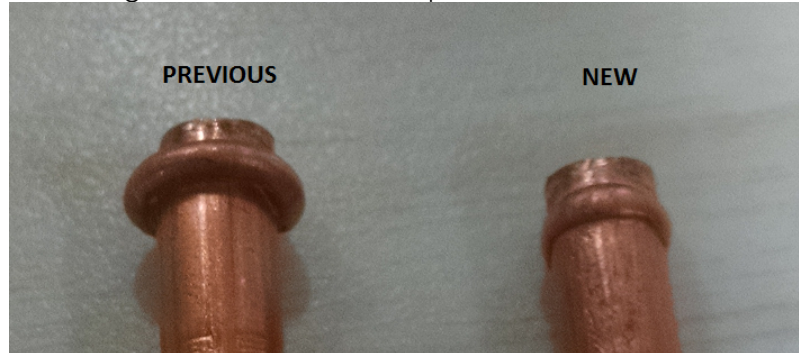


Upon discovery of this issue, the following actions have been taken:

1. The details of this issue have been widely communicated with plant personnel.
2. Additional training has been completed by brazing operators.
3. Additional quality checks throughout the manufacturing process have been added to ensure braze joints are of acceptable quality.
4. Employees have been and will continue to inspect and where necessary repair stock units.

The standard labor reimbursement rate for refrigerant system leaks will apply.

1. It was initially communicated that the eight units in question were all produced within the serial date range of M1406*** & M1501***. It should be noted that this was merely an observation taken from those initial eight units. We are now aware that this condition has been found outside of this date range.
2. The plant is continuing to 100% sort all 1/4" copper production parts for defects.
3. The radius edges of the bead stop have been lessened to reduce the likelihood of forming induced stresses. See picture below



4. New tooling has been ordered for the bead stop machinery.

Customers that experience either of these issues should file a warranty claim and if necessary, request Enertech P/N 28K043-01NN (Universal 1/4" Copper Tube Repair Kit). The standard labor reimbursement rate for refrigerant system leaks will apply. As always, any specific application or installation related questions should be directed to Enertech Tech Support at 618-664-5860.