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Technical Bulletin CT Oil Return

Date: February 21, 2013

Release #: TB13-002

Units affected- HCT, GCT, & TCT (Combo units)- All capacities

In a previous communication, we informed you that Enertech was experiencing oil return issues on some CT (Combo) units. Unfortunately, we were not able to recreate or pinpoint what exact conditions were causing the lack of proper oil return to the compressor. To ensure the constant lubrication that is needed, we have incorporated an oil separator, now in production CT models. The oil separator "catches" the excess lubrication oil leaving the high (discharge) side and returns oil back on the low (suction) to ensure constant compressor lubrication.

We do not believe it to be an installation or application/design problem, however, excessive radiant side water temperatures (above 110 deg) can possibly lead to this failure. It is advised that aquastats be set no higher than 105deg. This is a safe operating temperature for optimum efficiency and capacity. Above 105 deg will just "burn" more watts to run the compressor, which greatly reduces efficiency and expected savings.

Our engineering department is working on a field repair kit that will provide components and instruction to add the oil separator to existing CT units. This will take a few weeks to get all the engineering completed and the components procured to complete the kits. We hope to have the kits ready to ship by the end of March. Once this is completed, we will authorize a mandatory field repair.

<u>Until the time the field repair is ready to implement, it is highly suggested to run all CT units in the cooling mode, at high capacity, for 10-15 mins every week.</u> This will ensure that the oil does not remain "trapped" in the affected units. This exercise will only consume a total of 25-50 kwh if done weekly until the end of this heating season. Please contact your CT homeowners to do this exercise. Keep in mind, most units are not affected, this is a safety measure to ensure that oil is properly returned in all units.

Once we release the field kits, this mandatory repair can take place between April 1 and September 30, 2013. Please plan to have all completed by October 1, before the next heating season. Labor allowance will be provided for this repair, with details forthcoming early next month.

NOTE: This bulletin pertains to the CT Combo series in the multi-position cabinet <u>only</u>. No other unit series are affected, including past models of the combo.