

**TRANE™**

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SERVICE  
BULLETIN****MISC-SB-4**

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**SUBJECT:** FLORESCENT LEAK DETECTORS**MODELS AFFECTED:** All units having Tyler built compressors

**INTRODUCTION:** Over the past several years, a florescent leak detector has been introduced to the service world that promises the ultimate in leak detection. During the early days of introduction, several major players in air conditioning and compressor manufacturing were alleged to have accepted this material as satisfactory for use in their equipment. The Trane Company took a more conservative approach, and maintained the continuing policy that "no additives should be added to the refrigerant system". Since more and more companies have started selling the florescent leak detectors, comparisons were made of compressors with and without the florescent leak detector.

**DISCUSSION:** A variety of compressor models were chosen at random for testing at the Compressor Life Test facility. Side by side tests were conducted both without and with dyes supplied from two different manufacture's.

At the conclusion of the test, the compressors were disassembled and analyzed. The findings were consistent with findings from cut apart analysis of field returns containing the dye. In most cases the compressors containing the dye had copper plating on the bearing journal surfaces, and a dark film on the aluminum housing and frame parts. The non-dye compressors did not exhibit any copper plating or film. In two cases, the compressors containing dye, also had more bearing wear than "non-dye" compressors. While the film and copper plating is not fully understood, it is an indication of a chemical reaction which may be more harmful to compressor life in long term operation, than in the short 6 week life test.

**CONCLUSION:** The Trane Company will continue to maintain our position that refrigerant system additives must not be introduced into Trane systems.

Service personnel must be instructed to this policy and periodically reminded to refrain from this practice. Failure to comply may result in warranty cost being billed back to the offending party.

**ISSUED BY:** PRODUCT SERVICE: TYLER