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APPLIC. NOTICE GENERAL LIST

Issue No.: 03/08
Date: 20th March 2008
From: T King/K Edwards

Subject: ADVANCED SCROLL TEMPERATURE PROTECTION FOR SCROLL COMPRESSORS
Units: UNITS WITH ZR108/125 OR ZP103/120/137 COMPRESSORS

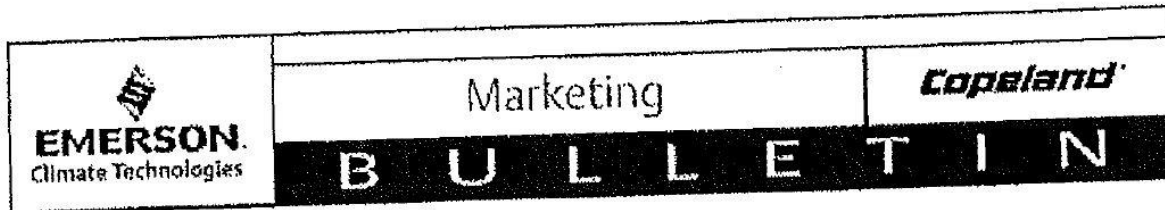
You will find attached the Copeland Bulletin highlighting Copeland's new "Advanced Scroll Temperature Protection (ASTP)". It is important that it is clear as to how this new form of protection works to avoid the unnecessary removal of compressors that may appear to have failed but in fact have not.

The protection is currently only on a limited range of compressors and those that we use in various units are listed below:

R22/R407C: ZR108 and ZR125
R410A: ZP103, ZP120 and ZP137

The bottom line is that we are used to compressors when they protect on the internal overload normally just stop running for a few hours until they cool down. ASTP keeps the compressor running for an extended period of time but unloads the scroll.

It would be easy to mistake this for a compressor that has failed because it no longer pumps when in fact it may simply reset. Obviously finding the root cause of the overheating or overloading still has to be identified and corrected. Do not condemn the compressor without checking this out.

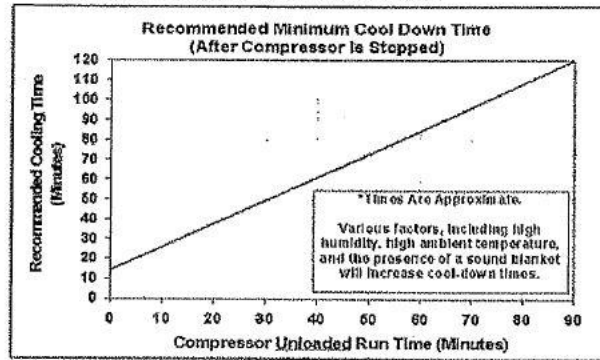


NO: PP32-04
DATE: 8/31/04
TO: ALL REFRIGERATION AND AIR CONDITIONING ORIGINAL
EQUIPMENT MANUFACTURERS
COPELAND PRODUCT PLANNING
FROM:
SUBJECT: ADVANCED SCROLL TEMPERATURE PROTECTION FOR
SELECT COMMERCIAL SCROLL MODELS IN 7-12 HP RANGE

Copeland is pleased to announce the implementation of Advanced Scroll Temperature Protection (ASTP) on its 7-12 HP Commercial Scroll Compressor Platform. This is a new form of internal discharge temperature protection that will greatly reduce heat related failures. ASTP is internal, automatic, and requires no external sensors, wiring, or hardware. Because it is internal, ASTP reduces the possibility for failure when devices such as thermostats and low pressure cutouts are bypassed during system charging and maintenance.

Advanced Scroll Temperature Protection works by unloading the scroll when the internal temperature reaches approximately 300°F (135°C). At this temperature, a bi-metal disk valve (Figures 1 and 2) opens and causes the scroll elements to separate, interrupting compression. Suction and discharge pressures balance while the motor continues to run. To manually reset ASTP, the compressor should be stopped and allowed to cool (see figure below). Unless it is stopped, the motor will run until the protector trips up to 90 minutes later. ASTP will reset itself by the time the protector resets. This may take up to 2 hours.

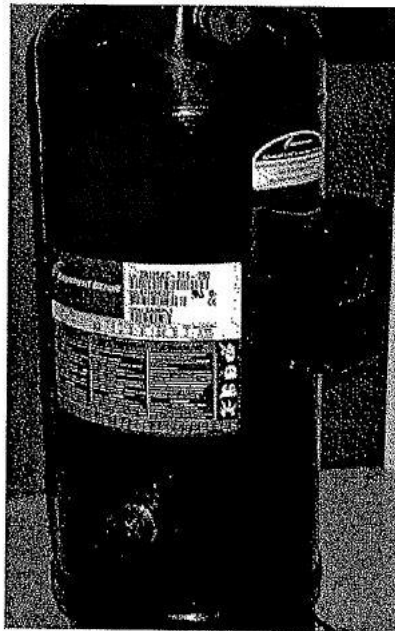
- The Longer The Compressor Runs Unloaded, The Longer It Must Cool Before The Bi-Metal Disk Resets



To identify compressors with Advanced Scroll Temperature Protection, a label has been added above the terminal box as shown in the photos below.



ASTP Label



ASTP Label On Compressor

15/03/2006

Currently, Copeland requires that customers use a Discharge Line Thermostat when these compressor models are used in Heat Pump applications. The introduction of Advanced Scroll Temperature Protection will eliminate this requirement.

Capacity	R22/R407C High Temp.	R22 Medium Temp.	R410A High Temp.
7 HP	ZR84KC/ZR84KCE	ZB50KC/ZB50KCE	
8 HP	ZR94KC/ZR94KCE	ZB58KC/ZB58KCE	ZP90KCE
9 HP	ZR108KC/ZR108KCE	ZB66KC/ZB66KCE	ZP103KCE
10 HP	ZR125KC/ZR125KCE	ZB76KC/ZB76KCE	ZP120KCE
12 HP	ZR144KC/ZR144KCE	ZB88KC/ZB88KCE	ZP137KCE

Production for all models is scheduled to start as follows:

Production Location:	Date Code:	Implementation Date:
Sidney, OH USA	04I	1-Oct-04
Thailand	05A	3-Jan-05

A 4 ½ minute video and presentation materials are located at www.EmersonClimateContractor.com/ASTP. For more information, please contact your Copeland Sales Representative.

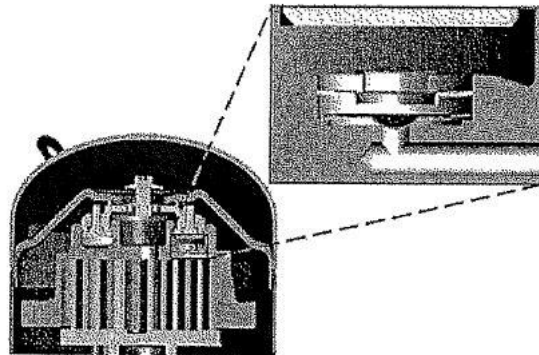


FIGURE 1:
 ADVANCED SCROLL TEMPERATURE PROTECTION INTERNAL FEATURES

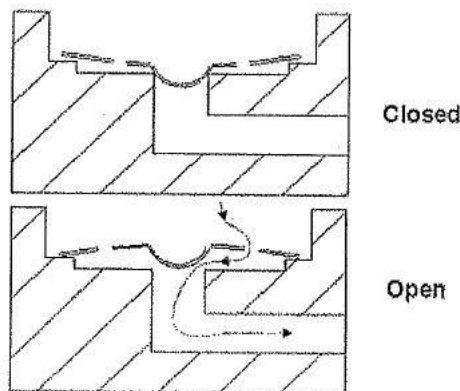


FIGURE 2:
 BI-METAL DISK VALVE POSITIONS

15/03/2006