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SERVICE BULLETIN : MSC Motor Protector Sensor Connection

Hartford Compressors has reviewed different motor protection methods and has decided on the following recommendations:

Hartford Compressors will continue to recommend that multiple methods of motor protection be used when operating our compressors. HCI feels that multiple methods of motor protection will ensure that if one safety control is not functioning properly then the other safety control will shut off the compressor in a high discharge temperature condition and will prevent the failure of the compressor motor.

1. The first and the most preferred method of motor protection is a discharge temperature control monitoring the temperature of the gas as it is leaving the compressor. A temperature control with a sensing bulb should be used. The sensing bulb must be attached to the discharge line and it must be insulated so it does not sense the ambient conditions.
 - The sensing bulb should be placed on top of the pipe at the 12:00 position approximately 12 inches from the compressor in order to get the most accurate readings.
 - The discharge temperature control should be set to trip the compressor when the temperature of the gas leaving the compressor reaches 210°F (99°C)

2. The second method of motor protection that Hartford Compressors recommends is utilizing the temperature sensors that are included with each MSC. Four temperature sensors are embedded in each motor inside of our vertical screw compressors. When the motors are built at A.O. Smith or Leroy Somer, two temperature sensors are installed and wired at each end of the motor in the winding bundle.

Previously HCI was only connecting three of these sensors and a common to the four post spade terminals in the control box. Effective immediately with serial number **DFC-A0347-03** HCI is now connecting the spare sensor (if available) to the S4 terminal on the oil thermostat four post feed thru terminal block.

