“How to fix High Delta T flowing through a Heating System”

Test for Correct System Airflow: Heating

Gas Heating - To calculate the airflow (CFM*):

Follow the directions below or use the formula: CFM = BTU OUTPUT / (1.08 x ΔT)

1. Turn on furnace and run for at least three minutes before taking measurements.
2. Measure supply & return air temperatures. Subtract the return air from the supply air temp.
3. Multiply the difference of the supply and the return air temps by 1.08. This will be the *DIVISOR*.
4. Find the BTU *OUTPUT RATING* (printed on side by the burner).
5. Divide the BTU *OUTPUT RATING* by the *DIVISOR*. (Divide answer from line 5 by answer from line 2) Answer = CFM

Electric Heating - To calculate the airflow (CFM*):

Follow the directions below or use the formula: CFM = (Amps x Volts x 3.412) / (1.08 x ΔT)

1. Turn on the heater and allow to run for at least three minutes before taking measurements.
2. Measure supply & return air temps & amps. Subtract the return air from the supply air temp.
3. Multiply the difference of the supply and the return air temps by 1.08. This is your *DIVISOR*.
4. Multiply Volts x Amps x 3412 and divide by the *DIVISOR*. Answer = CFM
   (Important: For accurate results measure the Volts while the system is operating.)

Primary cause for High Delta T is too little air flow, which can be caused by:

1. **A dirty filter**
2. **A dirty evaporator coil**
3. **A coil that is too small for the furnace or air handler**
4. **Duct work that is too small**

To correct High Delta T:

1. **Replace the filter**
2. **Clean the coil**
3. **Increase the motor speed**

*CFM stands for “cubic feet per minute,” which is a standard unit for airflow.
The above calculations are only valid when using temperature in Fahrenheit and BTU.

SUPERCOOL™ SLIDE RULE

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