

HEAT

Uneven Temperature in the House

This is probably an all too often asked question. “Why is my house like that?” There can be several factors involved in determining the cause of this one. Factors we can look at are heat load on specific rooms. The exposure direction such as facing South or the South-West corner room can greatly affect the load on the room. What kind of windows are in the space, what is the insulation value in the walls and ceiling, if there even is any. What does the duct delivery system look like? Droopy flex-duct or improper style tees or wyes or even a sub-plenum? Most people will blame the leaky windows and that could very well be an issue but we want to look at this issue more in depth before blaming the equipment for being too small.

A proper heat-load calculation should be done on the structure to see what should be installed as far as equipment size and what each room needs as far as cfm air delivery. Is that what is there and is it installed correctly? Sometimes the situation can be cured with some duct-work corrections without ever doing a thing to the equipment. Have you ever been in an attic and seen the box of flex duct with both ends open and flex coming out and hooked up to something? Yes this really happens. Drooping and unsupported, non stretched flex can kill airflow and equipment. Tee’s in place of Wye’s. A branch sub plenum installed? That is a plenum built into a box that is hooked up to a supply plenum via a big flex run and then the branch ducts coming off that “branch plenum”. It just doesn’t work. Too small of flex for the needed cfm for that space. Underground duct that is too small or filled with mud or water? I have even seen big zip ties used to choke

down the airflow in place of a balancing damper.

Use your eyes and brain and look at the duct delivery system to see if you can see anything that doesn't look right. Putting in a larger Kw heater might not be the answer to helping with the overall comfort of the space and keep the customer warm. The proper air delivery system is as important in this equation as the equipment selection is.

Proper airflow is so important. As a matter of fact what do we call our business? AIR Conditioning! If we don't flow air we can't condition it. It needs to be a situation where the customer comes into the room and just says "AHH! Now that's what I'm talking about". Not keeping the small children away from the return grill in the wall so they won't become sucked in and trapped until it cycles off or have to put their ear against the register to make sure the system is actually running. The air needs to be moving thru the living/working space continually with fresh, proper temperature, moisture controlled air to make the customer comfortable. Fix the airflow imbalance and you fix the temperature issue and get customers that will sing your praises to their neighbors and co-workers. Free advertising! Remember it's;

AIR CONDITIONING!