

Is infrared heat snake oil?

My first question is “Have you ever tried to remove a 100 watt light bulb that had been burning for an hour?” The thing was rather hot, wasn't it?? Imagine having 15 of them in a box. Do you think it would generate some heat?

We have gotten a lot of inquiries about the SUNHEAT and Edenpure brand heating systems that has been heavily advertised recently in local newspapers and on national radio. They use some slick statements to get you to think that they are cheaper to operate than a standard space heater. They tell you that they use unique solid copper heat exchangers. This might be true but aluminum is also a good conductor of heat and less expensive to manufacture. However, copper is a darker color and therefore will absorb heat from the heat lamps slightly faster than shiny, unpainted aluminum.

They tell you that SUNHEAT uses 35 percent less energy than a conventional electric furnace/baseboard system. That statement could be considered true but it also puts out 35 percent less heat! Note that you are getting less heat for less energy. When seeing the demonstration for the heaters, our people noticed that the fan did not come on as soon as the heater was turned on. The reason is that it takes time for the copper heat exchangers to heat up after the power is turned on. The sales pitch is that after the power is turned off, the heat coming from the heater is free. You can compare that to riding a bicycle down a hill after pedaling up there. How much energy did you use to pedal up before coasting back down? Therefore, the energy coming out of that pedalling is not really free!

The 1500 watt heater uses a cycling system to lower the current draw into the heater. They heat some elements and then switch them off while heater other elements, therefore not truly using 1500 watts of power but also not putting out the heat of a 1500 watt heater. If only 65% of the elements are being heated at any one time, then the true output of the heater would be 975 watts – therefore using 35% less energy.

They compare the power consumption to a Mr. Coffee brand coffee maker. That is a very good marketing ploy because the 750 watt model does use less than a coffee maker. In fact, we measured the power consumption of our Mr. Coffee and it used about 870 watts. However, the coffee maker is only using electricity to keep your liquid hot after brewing, and that is not a continuous as the heating plate cycles on and off.

Basically, the only nice thing about the SUNHEAT and Edenpure heaters are the fancy cabinets. However, if you want a stylish electric heater, look at some like our ConvectAir electric heaters that do not use valuable floor space, cost half as much and are available at your Cooperative. Or, with an electric fireplace you can have the option of electric heat or merely the aesthetics of the fire. They cost a lot less than the price of the SUNHEAT and operate at the same efficiency.

The SUNHEAT advertisements claim a low installation cost without ductwork, piping or 240 volt wiring. That is absolutely true for any portable electric space heater that you can buy for less than \$50. It is also true that any portable electric heater will not remove humidity from the air. However, you should remember from your science classes that when you heat air, you increase its ability to hold water vapor rather than remove it.

The SUNHEAT says that you have no more than a 2 degree temperature change from wall to wall or floor to ceiling. With a fan moving the air, you should find a fairly constant temperature in the room. With the geothermal central heat in many homes, you might not find a 2 degree temperature change between the first and second floor. A slow moving ceiling fan will also stir the air so that the room has an even temperature mix. There are even ceiling fans that have built-in heaters for those sun porches or living areas at the end of the house that stay cold.

While the SUNHEAT space heater is not a bad style of heating, it is a heating unit that is being promoted with the smoothness of the snake oil salesmen. If you want an electric space heater, you have many choices available in your local stores. All electric space heaters should operate at 100% efficiency by converting electric energy into heat.

There is no electric resistance heater that can be more efficient than a heat pump because a heat pump is moving heat from outside your home to inside home. The new geothermal heat pumps are doing that at 20 percent the cost of the SUNHEAT or other space heaters. If you want efficiency then you should look at a heat pump. If you want something cheap and effective then a space heater might be right for you.

As that famous radio personality that promotes these units would say: “Now you know the rest of the story...Good day!”



From the president

Dennis Astley