

WHAT ARE TANDEM ADD-ONS?

Last Updated: Thursday, March 28th, 2013, Created: Thursday, October 14th, 1999

Heating systems that operate on cheap fuel are not always reliable and cannot be counted on as the only heating system in the house. Common examples are:-- Solar energy and heat pumps: extended periods of cloudy weather mean you simply won't have enough heat.-- Wood or Coal burning furnaces, stove, or fireplaces: If you aren't there to feed them they eventually quit heating.-- Portable kerosene or propane "local" heaters: they require surveillance and refueling, and are not even intended to heat the whole house. You can effectively combine inexpensive but "unreliable" heating systems with a good-old reliable, but expensive furnace. The objective is to use the more expensive "back-up" system only when you have to. Different regions suggest different tandem systems, and the characteristics of your individual house may play a role (do you have a place for solar panels?). Up until the arrival of Gas in Nova Scotia, the provincial government actively encouraged wood as a heating source. Here are some tips on Tandem Add-Ons:-- One furnace can be put directly into tandem with another furnace (with caution in connecting the exhaust flues). The thermostat of the more expensive, reliable one should be set several degrees below the normal temperature for your house. It will only come on if the other, less expensive furnace is not providing enough heat.-- It is standard procedure for new heat pump or solar installations in Canada to have electric resistance "back-up" heaters built into them, to operate when it gets too cold. This function can just as well be served by your old furnace at no capital cost. And outside of Quebec, just about any fuel is cheaper than electricity.-- Even if the systems are not connected directly in tandem they can have the same effect if the thermostat of the more expensive one is lower than that of the cheaper one, or simply below the normal household temperature. A pot-belly stove can heat the house and keep the oil furnace shut down until the stove runs out of wood.-- Local heaters can inexpensively keep a living room or a recreation room comfortable all evening while the central furnace, turned down for the night, keeps the rest of the house considerably cooler. In this case, the thermostat of the furnace must not be installed in the locally heated room or the rest of the house will get too cold.-- If you live in an area where electricity is much cheaper than oil but your oil furnace is good for another 10 years, you can install an inexpensive electrical "plenum heater." This is an electrical resistance unit that is installed inside the warm-air plenum of the furnace system. The small electrical unit operates during the milder fall and spring, leaving the oil to kick in during cold spells. The electrical utility companies love this system because you consume more electricity in the mild season but not during the peak demand season. And the oil companies are happy because you didn't scrap that furnace. A major advantage of this system is that you don't need to upgrade your electrical entrance -- an expensive proposition if you wanted to go all electric. A major drawback is that you will eventually have to replace the oil furnace anyway. One house in Thunder Bay that received a good re-winterization job, a bit of passive solar heat, and continuous fan operation, uses only a 5kw heater -- the oil furnace doesn't kick in all winter long! Ten to 15 kw units are more standard.

Keywords:

Heating, Alternative