

# Personnel Heating

## Heating the Farm Office

Choosing an efficient and economical heating system for a farm office will largely depend on the following factors:

- *Type of Building*  
A farm office can be anything from a well-insulated brick-built building to a draughty wooden structure. The type of heating system used must take this into account.
- *Hours of Use*  
The hours of use of the office will influence the choice of heating equipment and whether it is worth improving insulation and draught-proofing.
- *Equipment/Documents*  
If the office contains computer/fax equipment or important documents it is worth considering a heating system that keeps the room aired even when it is not in use.

### Storage Heaters

For an office which is occupied for a fair proportion of the working day, it is false economy to heat the building with a makeshift system. Running costs will be high and where un-flued LPG gas fires are used condensation can be a problem.

A better solution is to use an **electric storage heater**. Although more expensive to buy than other heaters, they offer many advantages to the farm office. Storage heaters are cheap to run. They heat up on cheap night rate electricity and discharge their heat during the day.

For a small farm office requiring 20kWh of heat per day running costs would be about 52p against other types of heater which may cost over £1.50 to run. Over a number of winters this difference in running costs can produce large savings and can easily justify the initial capital outlay for the heater. To take advantage of cheap rate electricity the farm has to be on the right tariff and a suitable timing device is needed to ensure that the heaters only switch on during the cheap night-rate period.

With storage heating the office is warm right from the minute staff walk in. This is because the heaters load up overnight and start to discharge their heat very early in the morning - the coldest part of the day.

Temperatures in the office never drop to an unacceptable level even at night. This can be a great advantage with office computers which tend to be unreliable when subjected to extremes of temperature. Once installed, storage heaters are virtually maintenance free and normally give years of trouble free service. Good insulation and draught proofing is important for storage heating systems.

### Infrared and Fan Heaters

When an office is used for very short periods during each day a fan heater or infrared heater is a good method of providing a quick warm-up. Where an office is small and not too draughty, a fan heater is probably the best bet. It is cheap to install from about £10 per kW.

In larger areas where heating is only required in the corner of the office or where the room is very draughty, radiant heaters are



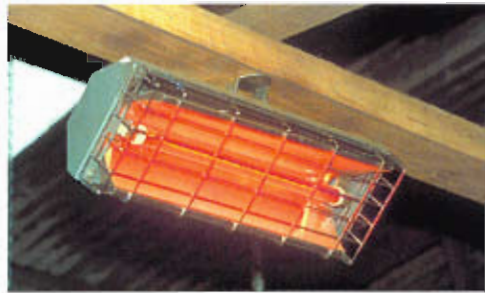
excellent for giving an acceptable “comfort zone” for the occupants.

Conventional wall-mounted metal or silica sheathed element heaters are relatively cheap (£10 to £20 per kW) and are suitable for most applications.

## Personnel Heating in Large Draughty Buildings

### Quartz Linear Lamps

A new type of radiant heater now offers the possibility of keeping people warm in very large draughty buildings where heating would once have been just too costly to consider.



These heaters use a Quartz linear tubular element (similar to those in quartz halogen lamps). The element is very hot (about 2200°C) and produces short wavelength infrared which remains effective over a considerable distance from the heater position.

They have been successfully used in situations such as vegetable lines, workshops and dairy parlours. Although more expensive than other infrared heaters (£50-£100 per kW), because they can be focused on a specific area, they are dramatically effective in otherwise unheatable areas.

## Controlling Heaters

All types of fan and infrared heaters can be controlled by thermostats and timeswitches. Such controls help energy efficiency and will usually pay for themselves quickly in reduced running costs.

As many farmers can accurately predict when they will be using the office, timeswitches are useful to switch on the heating prior to occupation.

Storage heaters are not the only type of heater that can benefit from a cheap night-rate electricity tariff. Other types of heaters can be timed to pre-heat the office early in the morning thus benefiting from the cheap night-rate .