



The OFTEC *easy guide to...*



domestic oil fired appliances and systems

Systems and Controls

Modern high efficiency appliances work best on fully pumped systems which use an electric pump to circulate hot water around your central heating system. If you have an old heating system or perhaps one which uses gravity it might need upgrading to a fully pumped one.

Your OFTEC technician will be able to advise.

Accurate system controls can save money by reducing heat wastage. Reducing room temperature by 1°C, you can save up to 10% off your annual fuel bill.

- Recommended controls include:
- Room thermostats
- Thermostatic Radiator Valves (TRV's)
- Cylinder Thermostat
- Programmers to set 'on and off' time periods
- Programmable room thermostat, which is both a programmer and a room thermostat.

Finding an OFTEC Registered Technician

The OFTEC website enables you to locate your nearest OFTEC Registered Technicians. OFTEC Registered Technicians are appropriately qualified and insured to work in your home.

You can also find a list of local Registered Technicians under the OFTEC logo in the 'Heating Engineers' section of your local pages.

For further information on oil heating and cooking, please see www.oftec.org

Finding an OFTEC Member Company

You can also visit OFTEC's Member Companies websites to look at the different appliances available by visiting the OFTEC website and clicking on Find an OFTEC Member Company. You will then be able to visit their individual websites.

This easy guide refers to all types of oil fired appliances, including boilers, cookers and stoves and outlines the basic principles of these appliances. For further information OFTEC recommends speaking to an OFTEC Registered Technician.

Appliance Types

Designed to be strong and long lasting, oil fired appliances are some of the most efficient you can get. There's a huge choice of floor standing or wall mounted boilers for installation inside and outside domestic premises.

All boilers require a flue to remove their products of combustion – these are the waste gases (or combustion gases) which leave the flue. Further information on flues can be found in OFTEC's Easy Guide to Flues, Chimneys and Ventilation.

System boilers are regular boilers which include an expansion vessel designed to cope with the increase in pressure when the heating system gets hot, and water expands, instead of having an expansion tank in the loft.

Combination boilers are capable of providing instant hot water and heating while saving space within a home. They are an increasingly popular choice within UK homes. The major difference is that a combination boiler eliminates the need to store hot water – so no hot water cylinder is required in the airing cupboard.

Condensing boilers are highly efficient. They use less fuel and have lower running costs than other boilers. Higher efficiency levels are made possible by extracting heat from the combustion gases which turns to liquid or water vapour. When siting the boiler, special consideration should be given for water vapour discharge or 'plume' from flues. Further information can be found in OFTEC's Easy Guide to Flues, Chimneys and Ventilation.

Range cookers have been available for many years. Some models have integral boilers capable of providing both central heating and hot water.

Hearth boilers can have an electrically operated fire effect in front of them to warm the room, whilst providing central heating from an integral oil fired boiler at the back of the appliance. These can be used to replace solid fuel room heaters and LPG back boilers.

Room heaters or stoves are available with decorative effect fires burning oil through imitation coals behind a glass front. Some of these will have back boilers capable of providing hot water and/or a central heating service.

Your OFTEC Registered Technician will be able to advise further on the type of appliance which will suit your needs.



www.oftec.org

OFTEC
Oil Firing Technical Association
Foxwood House, Dobbs Lane,
Kesgrave, Ipswich IP5 2QQ

Tel: 0845 65 85 080 Fax: 0845 65 85 181

PUB/31 Issue 1 14.03.2007



Appliance Efficiency

Oil fired appliances have rated efficiencies which can be band rated (A – C) similar to white goods such as fridges and washing machines. An appliance/boiler may have a SEDBUK (Seasonal Efficiency of Domestic Boilers in the UK) rating. In the Republic of Ireland a similar rating system HARP (Home Heating Appliance Register of Performance) is proposed. Further information on appliance/boiler efficiency ratings can be found at www.sedbuk.com and information on range cooker boilers can be obtained from www.rangeefficiency.org.uk

SAP (2005) and DEAP

New build properties are required to meet regional environmental requirements to control and reduce carbon emissions. In England, Wales, Scotland and Northern Ireland this is referred to as SAP (2005) (Standard Assessment Procedure), and in the Republic of Ireland as DEAP (Dwelling Energy Assessment Procedure). These are calculation processes which dictate the efficiency of the appliance to be used.

In existing properties the minimum efficiency of replacement appliances must meet regional Building Regulation requirements. The use of renewable technologies, such as, solar panels for hot water production can be integrated with oil fired systems to further reduce carbon emissions and help reduce energy bills. This can be in addition to:

- Wall Insulation
- Floor Insulation
- Roof Insulation
- Double Glazing
- Draught reduction
- Energy saving light bulbs

Your OFTEC Registered Technician will be able to advise you further on this.

Appliance Location

When deciding on location for appliances, pipework for oil and water supply must be taken into consideration. There are also rules concerning flue and discharge positions.

Open flued appliances draw air for combustion from the room in which the appliance is located. Flue products rise naturally and escape through a vent or chimney. Such appliances should not be installed where they can draw air from a bedroom or bathroom. Where room sealed balanced flued appliances are installed within a bathroom or shower room, the electrical connections to the appliance must be safe. Any switches or controls should be enclosed so that anyone using the bath or shower can not touch them.

A boiler can be located under the stairs where premises do not exceed two storeys.

In exceptional circumstances a boiler can be located in the loft, but house insurers and local fire authorities must be made aware.

Garages are often used for siting oil fired appliances. A room sealed balanced flue appliance should be used because this type of boiler draws its air for combustion directly from outside through the same flue used to discharge the flue products, so car fumes are not drawn into the boiler.

Some oil fired boilers can be installed outside or through the wall.

Maintenance and Safety

Oil fired appliances should be serviced regularly according to the manufacturers instruction. It is important that enough access space is left for the service of the appliance. Sometimes access will be required at the rear. Boilers should not be placed where a ladder is needed for maintenance.

Your OFTEC Registered Technician will be able to advise on the most suitable location for your appliance.