

# Non-Domestic Oil Storage



This information sheet applies to non-domestic oil storage tanks including those supplying commercial buildings such as offices, village halls, churches and schools. It also applies to domestic tanks over 3500 litres capacity supplying single family dwellings. OFTEC recommends that tanks containing waste oil are treated in the same way as fuel supply tanks.

This information sheet does not cover forecourt (petrol station) operations or agricultural installations.

For guidance on domestic tanks below 3500 litres, please refer to the “OFTEC Home Guide to Domestic Oil Storage”.

## Construction and type of tank

Oil storage tanks can be constructed from carbon steel, medium density polyethylene or glass reinforced plastic. The shape and size (rectangular, horizontal cylindrical or vertical cylindrical) should be selected by taking into account the available space for installation and the capacity required to serve the appliance(s).

Underground tanks should only be considered where no other options exist, as they are difficult to inspect and leaks may not be immediately obvious. Information on the installation, decommissioning and removal of underground tanks can be found in the Environment Agency guidance note PPG 27.

## Environmental protection

To minimise the risk of pollution from an oil spill, non-domestic oil storage tanks exceeding 200 litres must be provided with secondary containment (bundling). This can be achieved by installing an integrally banded tank or by constructing a concrete or masonry bund, to CIRIA Report 163, around a single skinned tank. The bund must be capable of containing at least 110% of the oil storage tank's capacity.

It is important to provide facilities for measuring the quantity of oil in a tank. Sight tubes can be used as long as they are located within a concrete or masonry bund built to CIRIA Report 163. They cannot be used on integrally banded tanks and therefore, electronic or hydrostatic contents gauges are recommended.

*NOTE: Greater technical information regarding environmental protection requirements applicable to oil storage tanks can be found in other OFTEC Information Sheets entitled “The Control of Pollution*



*(Oil Storage) (England) Regulations 2001, “The Water Environment (Oil Storage) (Scotland) Regulations 2006”, and “The Control of Pollution (Oil Storage) Regulations (Northern Ireland) 2010”, as applicable.*

## Fire protection

Externally sited non-domestic oil storage tanks should comply with the fire separation requirements in Column A of Table 1. Where these separation distances cannot be achieved, a screen wall must be provided between the tank and the hazard (either a building or boundary) in accordance with the specifications in Column B.

Additionally, where a tank contains more than 3500 litres any openings in the walls between 1.8 and 6m away from the tank should be fitted with 1 hour fire resisting glazing or 1 hour fire resisting self-closing doors.



Tank capacity	Column A		Column B	
	Buildings and boundaries	Building Openings	Fire resistance	Extension higher and wider than the tank on each end
Up to 3500 litres	2m, if less than 1h fire resistant	1.8m	1h	900mm
More than 3500 litres	6m, if less than 2h fire resistant	1.8m (see note)	2h	900mm

(Source: BS 5410 – 2)

Table 1

## Maintenance

Steel oil storage tanks, when properly installed, may require infrequent maintenance during their useful life. However, they should be regularly inspected for any signs of corrosion or leakage.

Plastic oil storage tanks usually require little maintenance. However, it is important that they are also inspected for any signs of leakage, discolouration and deformation.

It is recommended that oil storage tanks and their ancillary equipment are inspected on an annual basis by an OFTEC Registered Technician.



## Bases

The need to provide suitable bases and supports for oil storage tanks is of paramount importance for reasons of both safety and environmental protection. Tank bases should be:

- Adequate for the weight of the tank;
- Non-combustible, impermeable and level;

- Constructed of concrete, paving stones or stonework;
- Large enough to extend 300mm beyond all sides of the tank.

Further information on preparing base foundations, erecting piers and laying platforms can be found in OFTEC Technical Book 3.

## Internal Oil Storage

An oil storage tank sited inside of a non-domestic building must be fully enclosed within a fire resistant chamber. The walls, roof and doors of the chamber will require a fire rating of between 30 minutes and 4 hours, depending on the class of oil storage and the capacity of the tank. Consideration should also be given to access, ventilation, fire extinguishing equipment and electrical safety within the chamber. Further information can be found in OFTEC Technical Book 3.

## Finding an OFTEC Registered Technician

The OFTEC website enables you to locate your nearest Registered Technicians. OFTEC Registered Technicians are appropriately qualified and insured to work oil fired equipment.

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](http://www.oftec.org)

For more information on this subject or for further information sheets:

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