

BS EN 1254 Part 2 states that type B fittings should be used with R220 (annealed) soft copper tube. Metric flared fittings are manufactured in the UK and are widely available through merchants. One advantage of flared fittings is that metric pipe can easily be joined to imperial. A new appliance or pipework can be connected to an existing 3/8" supply by using a 10mm flared fitting with an optional 3/8" nut. Type A compression fittings would not necessarily give a sound installation, and in particular for oil suction lines it is crucial not just to get an oil tight seal, but also an air tight one as well. In other regions of Europe there are fittings utilised with R220 (annealed) soft copper which appear to be type A. However, these are designed for use with internal supports. In the majority of cases, installations in the UK and the Republic of Ireland leave joints, pipework and fittings exposed unlike installations in other parts of Europe, and therefore a strong, robust mechanical connection is essential.

Soft soldered joints must not be used on oil supply lines and equipment as this creates a non-fire resisting weakness in the supply system.

3.1.12 Oil Filter/Water Trap (Diagram 3.5)

Where filters and other similar equipment are fitted in oil lines, it is very important that sufficient clearance is left around and particularly below them to enable servicing operations to take place easily and without the risk of loss of oil.

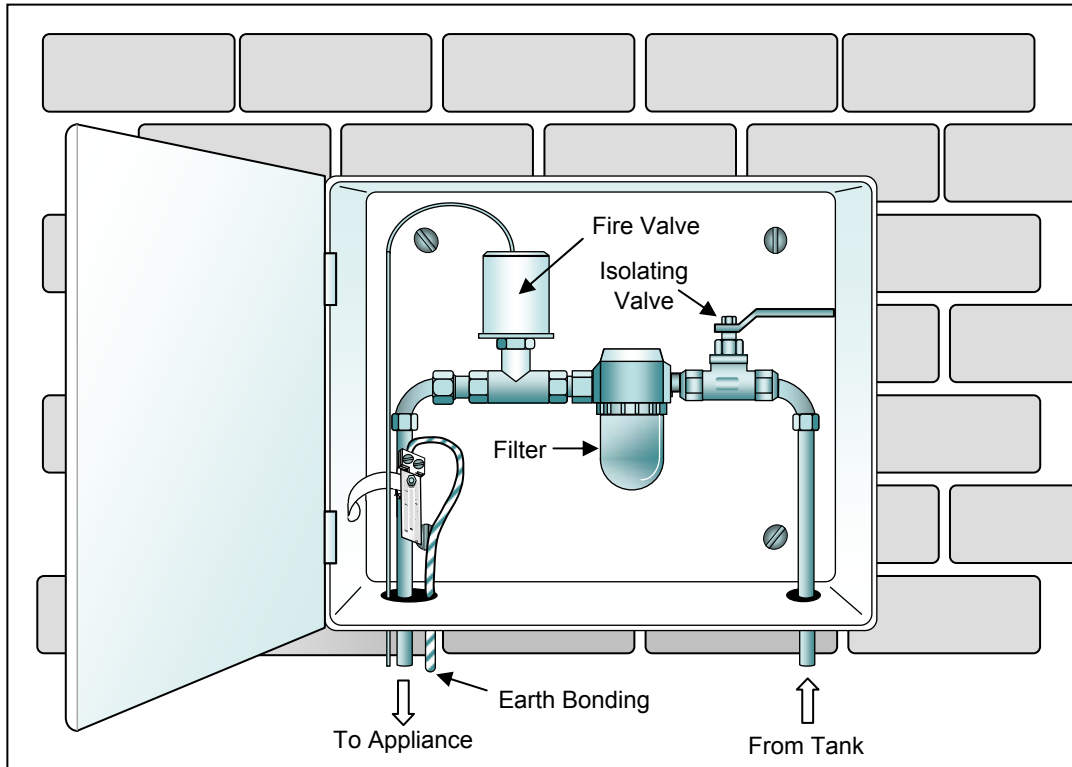
A filter should always be fitted close to the oil storage tank. A further filter close to the appliance may be needed if there is any doubt about the internal condition of the oil line and where required by the appliance manufacturer.

Where an oil strainer (having a filtration size no greater than 150 microns) is fitted at the oil tank an additional filter (having filtration of no greater 70 microns) should be fitted downstream to protect both the appliance and other oil line equipment and components.

Appliance/burner manufacturers may require a greater degree of filtration as low as 20 microns. This is specifically to protect items such as burner components and atomising nozzles, which are now available in sizes as small as 0.3Us gal/h (1.15kg/h). It is therefore increasingly important that the manufacturer's specified filtration requirements are met.

Filter bodies should either be constructed of metal and have disposable filter media or they should comply with OFTEC Standard OFS E104.

Diagram 3.5
(External Wall Box Assembly)



3.1.13 De-aerator Devices (Diagram 3.6, 3.7 and 3.8)

De-aeration devices remove residual air from the fuel, promoting enhanced burner efficiency and cleaner combustion. These are only for use with pressure jet burners. A separate de-aerator is required for each burner/fuel pump installed. De-aerators typically incorporate an integral non-return valve so that the addition of a separate non-return valve in the suction line is not usually required.

NOTE: The addition of non-return valves can cause excessive resistance beyond the capabilities of the fuel pump.

External De-aerator Devices

De-aeration devices constructed of plastic and which vent to the atmosphere should only be installed externally to the building and external appliance casings. This is because their material of construction and the oil vapour emitted could constitute an increased fire hazard if installed internally or within an appliance casing.

BS 5410 does not identify a specific minimum separation distance from a de-aeration device to flue termination points, but we would recommend that wherever practically possible that external de-aeration devices of the type described above are not installed in close proximity to the flue terminal pipe.