

Single Skin Tanks, Integrally Bunded Tanks and Double Skinned Tanks, ...What does it all mean?

Depending on the design of an oil storage tank, various descriptors can be used to promote the functions that it offers. However, they are often misinterpreted, which can lead to non-compliance with regional and environmental legislation.

A single skin oil storage tank is fabricated from one layer of steel or plastic and should only be considered for installation where there is very little or no risk of environmental damage in the event of an oil spillage. Where a risk of environmental damage exists a single skin tank can be positioned within a secondary containment area (Bund) that offers a containment capacity of not less than 110% of the capacity of the tank. It is to be noted that open bunds require periodic maintenance to remove potentially contaminated rain water and regional legislation may prohibit their use in some areas.

An integrally bunded oil storage tank consists of an inner tank positioned within a larger tank (or bund), which is capable of containing at least 110% of the inner tanks contents, in the event of a leak or over-fill incident. The inner tank and bund are usually made from steel or plastic and the inner tank should normally be fixed to the outer tank (bund). Integrally bunded tanks are seen as an acceptable method of providing secondary containment and negate the need to construct a concrete or masonry bund (previously referred to as a catchpit). Some areas regard integrally bunded tanks as the only means of compliance when secondary containment is required.

A double skinned (or twin walled) oil storage tank is primarily used for underground installations and incorporates leak detection. They are predominately constructed of steel and comprise of an inner tank, which is surrounded by an outer skin. Double skinned tanks should not be confused with integrally bunded tanks, which offer a secondary containment system, nor should they be considered as sole means of compliance when secondary containment is required.

Awareness of all types of oil storage tank is essential for anyone involved in the specification and installation of oil storage and supply systems. Some regional legislation also demands that oil storage tanks are constructed and tested to specific standards such as OFS T100 for plastic tanks and OFS T200 for steel tanks to achieve compliance.

Remember, good oil storage ensures safety of people, property and the environment as a whole.