

concept • components • advantage • methods • loading • discharge • categories • what makes a tank special? • glossary

BS Table D Specification for bolted flanges for pressure applications.

BSP British Standard Pipe Thread. A thread form common on pipe fittings.

CFM Cubic Feet per Minute. Imperial measurement of rate of flow. Usually applied to airflow.

Closed Cup (CC) Closed Cup (CC) describes a method used to ascertain the flash point of a liquid.

Design Pressure The pressure used to calculate the thickness of the shell of the tank. Design Pressure to equal or exceed the maximum allowable working pressure or equal or exceed the Test Pressure, depending on which code is applicable.

Filling Ratio Maximum permissible weight of cargo per unit volume.

Hg Inches of Mercury. Units of measurement for low pressure (usually vacuum).

ISO International Standards Organisation. An advisory body, whose recommendations have been accepted and incorporated into the official technical standards of many countries in the area of the transportable container. The aim of the organisation is to achieve a unified approach to cargo container design and handling.

MAWP Maximum allowable working pressure.

NPT National Pipe Thread. The thread form for pipe fittings used in the USA.

ØorPh Phase. Applied to electrical power supply.

PCD Pitch Circle Diameter. Diameter of circle upon which bolt holes are placed on flanges etc.

Plate Valves A valve consisting of a plug which is moved in and out of its seating by an operating mechanism. Most foot valves are plate.

TIR / Custom seals The term TIR is commonly used to denote the approved customs sealing on a container.

Periodic Tests These are performed every 2.5 years. The depot ensures the tank is repaired and made ready for the test. Then a competent authority who are certified to do the test (BV, DNV, ABS, etc.) are instructed to perform it. In the 2.5 year test the tank is filled with air, and checked to see it is completely airtight. Whereas the 5 year periodic test (A Hydrostatic Test) which has to be performed every 5 years, the tank is filled with water and checked for leaks. Hazardous cargoes may only be transported in tank containers which have a valid Test certificate.

Psi (lb/in) Pounds force per square inch gauge.

SG Specific Gravity

The relative weight or density of a solid or fluid expressed by the ratio of its weight to that of an equal volume of a substance taken as a standard, water in the case of liquids and solids, air for gases. e.g. Water = 1. Other examples –Whisky = 0.90, Turpentine = 0.86, Kerosene = 0.80, Fruit Juice = 1.34, Phosphoric Acid = 1.8 – 1.9, Bromine Trifluoride = 2.49, Aviation Fuel = 0.63 – 0.79. The higher the SG, the smaller the tank will be, all things being equal.

Total Containment Pressure The sum of the internal pressure to which a tank container is subjected in normal service. The total pressure may not be greater than the Maximum Allowable Working Pressure of the tank.

Vapour Pressure The development pressure within a closed vessel containing a liquid. Each liquid has its own vapour pressure which varies with temperature.

Ullage area Free space within the tank after cargo has been loaded. The fill ranges between a minimum 80% and a maximum of 95% (97% on some chemicals) Actual filling ratio must never be less than 80% for tanks not partitioned in compartments of less than 7,500 litres.

Walkway This runs the length of the tank, allowing safe access to all the components on the top of the tank. Generally made from non-skid / marine aluminium, and about 3mm thick.

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