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## Concept of the ISO Container

The standard box container was developed in the mid 50's by the Americans, in a move to use the container as the 'outer packaging' as opposed to the then traditional cargo sling methods of unloading the contents from a lorry, into a ship, and then into another lorry for final delivery. The container concept 'did away' with the wheels, and the manpower, and improved the storage and handling methods – an altogether more flexible mode of carriage. By the early 60's the container dimensions had standardised to an international standard size of 20' long, 8' wide & 8' 6" high – the ISO (International Standards Organisation) Frame. At each corner of the container is fitted with a corner casting, which allows for the container to sit on a chassis, a railcar, in a ships cell guide or be handled by a spreader. To prevent movement, a twistlock twists into the corner casting, locking it in position. By the mid 60's the first Tank Containers were being built – a cylindrical pressure vessel set within the ISO frame. They are constructed in accordance with strict international codes for the worldwide carriage of bulk liquids on land or at sea.

The ISO Tank Container was developed for the carriage of all types of liquids, ranging from, but not limited to, potable (food grade) liquids, non hazardous, and hazardous liquids, including corrosives, flammables, toxics, and explosives. The Tank Container eliminates the risks in transferring liquids from one vessel to another, and provides for an extremely safe, secure, cost effective, and viable mode of transportation. Once the Tank Container has discharged, it is taken to a recognized cleaning station, cleaned thoroughly for that product, and then made ready for it's next load. Although tank containers have a fairly uniform external appearance, the construction materials, linings, and fittings vary. Tanks are classified according to the specification of the tank shell and fittings. It is this classification which determines what type of product maybe carried. The function of the frame is to support and protect the tank as well as to facilitate the stowage, securement and handling by standard ISO container equipment. When properly handled, the frame is designed to cope with the stresses of a fully loaded tank.

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