

Tank Specifications:

API (American Petroleum Institute) Standard 650 covering “Welded Steel Tanks for Oil Storage”

AWWA (American Water Works Association) Standard D100 covering “Steel Tanks for Water Storage”

ASME (American Society of Mechanical Engineers) Boiler and Pressure Vessel Code, Section VIII, Division 1,2

UL (Underwriters Laboratories) 142 covering “Steel Aboveground Tanks for Flammable and Combustible Liquids

There is no established standard for carbon steel or stainless steel chemical storage tanks. The above referenced standards are the most common and well known. UL 142 is the least stringent standard, and is ruled out in this application since the specific gravity of the product stored exceeds the limit of UL 142 set at 1.0. AWWA is ruled out since the product being stored is not water. ASME is ruled out since this is an atmospheric vessel, not a pressure vessel. The ASME code would typically be instituted for applications that require a 15 psi rating or greater. API 650, Appendix J, is generally used as a guide for shop built tanks that are not elsewhere classified, when an industry standard is considered a benefit. API 650 specifically states that the “agreement between the seller and purchaser shall take precedence over the specification”. Therefore, although atmospheric pressure designed chemical storage tanks do not follow a particular standard, it is common to follow API 650, Appendix J, where applicable, for materials of construction, welding procedures, nozzle design, etc.