ABSTRACT

A pressure vessel is a container, which is designed to hold fluids at a pressure substantially different from the ambient pressure. Pressure vessels are used in a variety of applications ranging from industrial compressed air receives to domestic hot water storage tanks. Current analysis is using ANSYS one can do analysis of pressure vessels through manually using the concepts of thin and thick cylinders, and also using software tools such as Hyper mesh, ANSA, ANSYS. To manufacture a pressure vessel, one should perform different types of analysis such as static analysis, Model analysis, out of which we are using static analysis to analyse stress and deformation in the pressure vessel. Material properties used are young's modulus, poisons ratio and inputs which are given are boundary conditions, internal pressure. In this report we are analysing maximum deflection for the given internal pressure.