
Design of process vessels under internal pressure: Thin wall vessels, Cylindrical vessels, Tubes, Pipes, Spherical vessels, Design of heads and closures such as different heads, Nozzle, Flange joints, Gaskets, Types & design of non-standard flanges and Bolts.

Design of process vessels under external pressures: Introduction, Determination of safe pressure against elastic failure, Circumferential stiffeners, Spherical shells, Pipes and tubes under external pressure.

Design of tall vessels: Introduction, Equivalent stress under combined loadings and Longitudinal stresses.

Design of support for process vessels: Introduction, Different types of supports, Design of supports.

Design of thick walled higher pressure vessels: Introduction, Stresses and theories of elastic failure.

Equipment fabrication and testing: Welding joints, Inspection and Non-destructive testing of equipment.

Design of some special parts: Introduction, Expansion joints and its design, Expansion loop in piping system, Design equations for expansive forces in pipe lines, Shafts and Keys.

Storage tanks: Introduction, Classification of storage tanks, Filling & breathing looses, Design of liquid and gas storage tanks.

Text Books:

Reference Books: