

عنوان مقاله:

Design and Analysis of Pressure Vessel Subjected to Pressure-temperature Variation

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خلاصه مقاله:

Pressure vessel is a container used to store fluids under pressure and temperature. The fluids can be air, water, chemicals, fuel, gases etc. are most commonly used in food and chemical industries, oil refineries and so on. Pressure vessel is subjected to thermal and structural loads for power plant applications. Since the pressure vessel are subjected to both structural and thermal loads stresses, the design of pressure vessel was done using standard code and design methods. In this paper a design methodology is developed for pressure vessel used in Coker Blow-down application based on ASME Section VIII, Division 1 design code. The design methodology has been developed and the same is verified with numerical method so that it will not fail in case of variable pressure and temperature condition. The modelling has been done using SolidWorks-2015 and analysis is done using ANSYS

کلمات کلیدی:

,Pressure Vessel,Finite Element Method,Fatigue Analysis,Structural Analysis,Thermal Analysis,Fatigue Life

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