

Dynamic Model of Heat Transfer Process in Steam Drum Wall of Drum-Boiler

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A two-dimension model that have been realized in Malab environment to study the thermal process in the metal and insulation parts of steam drums in drum-boiler for simulation the temperature in the metal and in the insulation parts of steam drum wall in drum-boiler is presented. The model derives from a finite differences method based on the discretization of the Fourier's heat conduction equation. The dynamic simulation results of the model describes the temperature in 18 metal layers and 10 insulation 10 layers during start-up period. The model has been validated against other literature.