

Experiments on the Onset of Water Accumulation and CCFL
Through a Multi-hole Plate in a Vertical Tank

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Abstract

An experimental study was performed to investigate the air-water countercurrent flow limitation through perforated plates inside a vertical tube. Effects of plate thicknesses, multiple holes and the location of air vent line on the onset of water accumulation or on the onset of countercurrent flow limitation were examined. In addition, the influence of the location of air vent line on water level distributions was investigated. A new Kutateladze type correlation for the onset of water accumulation was developed and present experimental results were compared with existing correlations and data.