

ABSTRACT

A vertical multitubular heat exchanger that can prevent clogging of a polymerized material and is continuously operable for an extended period of time is provided. The vertical multitubular heat exchanger (1) of the present invention introduces a process fluid containing an easily-polymerizable substance into heat exchanger tubes (28) to perform heat exchange. The vertical multitubular heat exchanger (1) includes a shell (2) extending in a vertical direction, an upper tube sheet (8) and a lower tube sheet (10) respectively disposed at the upper portion (4) and the lower portion (6) of the shell (2), and a plurality of heat exchanger tubes (28) whose outer circumferences (26) of both ends are respectively fixed to the upper tube sheet (8) and the lower tube sheet (10). An upper surface (34) of the upper tube sheet (8) is formed to be sloped and at least one of the heat exchanger tubes (28) is disposed in the vicinity of the lowest position of the upper surface (34) of the upper tube sheet (8).