Abstract

Vertical Combined Feed/Effluent Heat Exchanger With Variable Baffle Angle

A shell and tube heat exchanger, such as a vertical combined feed/effluent heat exchanger (VCFE), including: a shell having a fluid inlet and a fluid outlet; a plurality of baffles mounted in the shell to guide the fluid into a helical flow pattern through the shell; wherein a helix angle α of a baffle proximate the inlet is different than a helix angle ß of a baffle proximate the outlet.

Figure 2