

### **34. DESIGN AND ANALYSIS OF TRIPLE PIPE HEAT EXCHANGER**

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This paper deals with heat exchangers which are used in industrial processes to exchange heat energy between two process fluids. Normally double pipe heat exchangers are used for these processes having two concentric pipes of different tube diameters with a certain heat transfer rate. In order to increase the heat transfer rate in a double pipe heat exchanger, a third pipe is introduced inside the inner pipe, so that the contact area is increased which forms a triple pipe heat exchanger, in which the mass flow rate is not disturbed. Experimental calculations were performed using LMTD method which shows that the heat transfer rate in triple pipe heat exchanger is greater than that of a double pipe heat exchanger.

Keywords: Triple pipe; LMTD method; Heat Exchanger

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