A D PUBLICATION

International Conference on
Futuristic Trends in Engineering, Science, Pharmacy and Management

ISBN:

Design and Optimization of Lubrication Oil Cooler as per TEMA using HTRI Software as per ASME Section VIII (Division 1)

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A B S T R A C T : By using kern method for thermal calculation and number of iteration were done for comparing and analyzed in HTRI software for batter performance of shall and tube type heat exchanger. The oil cooler which is used for injection molding machine in plastic industries consider and discussed as shall and tube type heat exchanger in this work. Design of heat exchanger done by using HTRI and compare with manual calculation. It is observed that number of tubes decreases in HTRI as compared to the tube obtained during manual calculation. Over all heat transfer coefficient is also found adequate enough to run the heat exchanger at an optimal mass flow rate.

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Keywords: Heat Exchanger, HTRI, Oil cooler, LMTD

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