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THERMAL DESIGN OF SPIRAL PLATE HEAT EXCHANGER THROUGH NUMERICAL MODELLING

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Abstract

Spiral plate heat exchangers allow large areas of heat exchange surface in a small space. Thermal design of spiral plate heat exchangers is complicated in relative to that of ordinary double pipe or plate type heat exchangers. Numerical approach can be regarded as an appreciated technique for rapid designing of spiral plate heat exchangers. Hence in the present work, numerical modelling approach is explained in thermal design of a spiral plate heat exchangers. The temperature variation along the heat exchanger and heat transfer rate has been estimated and presented. Optimal design.

Author Keywords

Spiral plate heat exchangers, Temperature distribution, Numerical modelling, Optimal design.

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