Abstract

This paper presents an MS Excel spreadsheet add-in for heat exchanger logarithmic mean temperature difference (LMTD) correction factors for ten heat exchanger configurations. It is a computer tool for determining the LMTD correction factors for complex heat exchanger flow arrangements. The charted correction factors for various flow arrangements were curve-fitted using the MS Excel Solver tool. Lagrange interpolation scheme was used to formulate the relevant interpolation formulas for the various flow arrangements considered. The interpolation scheme was programmed in MS Excel Visual Basic for Application as an add-in. Results obtained agree with the values from the correction-factor charts presented in the literature. The add-in is a veritable tool for spreadsheet heat exchanger design and performance analysis for design engineers as well as for educational purposes.

References


**Index Terms**

| Computer Science | Algorithms |

**Keywords**

Heat Exchangers  Lmted Correction Factors  Curve Fitting  Spreadsheet Add-in