

Erratum: “Optimally Staggered Finned Circular and Elliptic Tubes in Turbulent Forced Convection”

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The original paper reported a heat transfer gain of up to 80% of the optimized elliptical tubes arrangement with respect to the optimized circular one. In fact, the actual heat transfer gain found experimentally is up to 23% only. Therefore corrections are needed in the paper, as follows.

(1) Abstract: correct to “...A relative heat transfer gain of up to 23% ($Re_{2b}=10,600$)...” and “...A relative heat transfer gain of 23% is...”

(2) Section 4 Results and Discussion:

(i) Correct Eq. (10) to “ $\tilde{q}_{*,mmm} = 1299.5 + 0.47003 Re_{2b} + 0.000034064 Re_{2b}^2$, $R=0.99053$ ”

(ii) Correct the 7th paragraph to: “In sum, a heat transfer gain of up to 23% was observed...”

(3) Section 5 Conclusions: correct the 2nd paragraph to “...The three-way optimized elliptic arrangement exhibits a heat transfer gain of up to 23% relative to...”

(4) Figures 3 and 4 need to be replaced by the following ones with the corrected results.

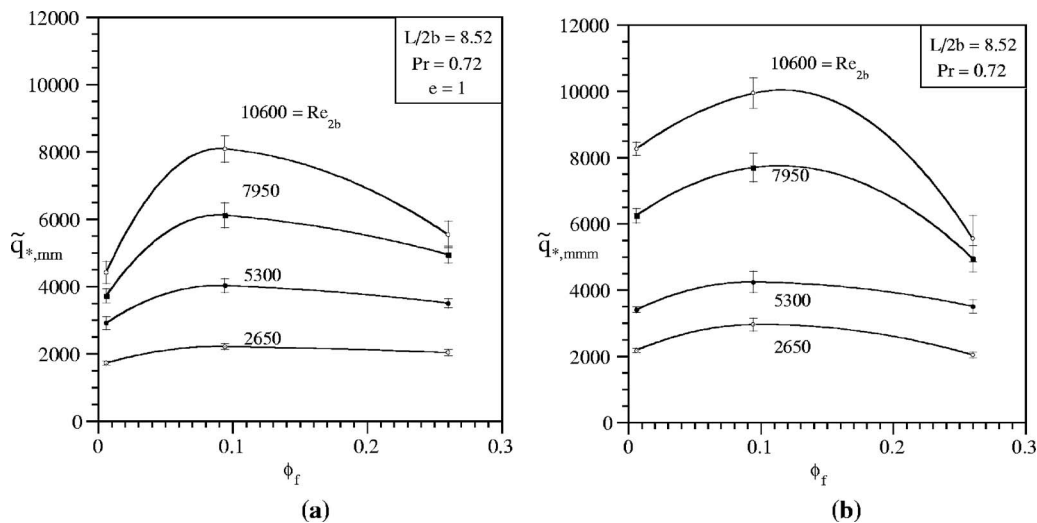


Fig. 3 (a) Two-way optimization of finned circular arrangements with respect to tube-to-tube and fin-to-fin spacing and (b) three-way optimization of finned arrangements with respect to tube-to-tube spacing, eccentricity and fin-to-fin spacing

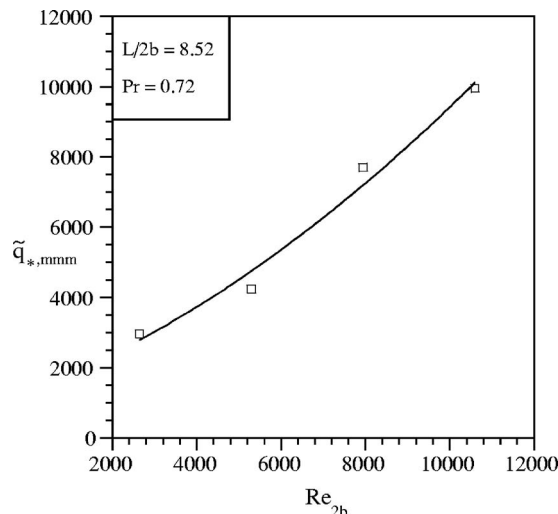


Fig. 4 The three-way maximized dimensionless heat transfer rate with respect to Re_{2b}