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Thermohydraulic performance of solar air heater with staggered multiple V-shaped ribs on the absorber plate



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Highlights

- Staggered multiple V-shaped ribs were proposed for heat transfer enhancement.
- Characteristics of the flow structure and heat transfer were derived and analyzed.
- Staggered V-shaped ribs performed better than the corresponding inline arrangement.
- The optimum stagger distance for maximum heat transfer enhancement was derived.

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