

Exergy Losses Relation with Driving Forces in Heat Transfer Process

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Abstract : Driving forces along with transfer coefficient affect on heat transfer rate, on the other hand, with regard to the relation of these forces with irrversibilities they are effective on exergy losses. Therefore, the driving forces can be used as a relation between heat transfer rate, transfer coefficients and exergy losses. In this paper, first, the relation of the exergetic efficiency and resistant forces is obtained, next the relation between exergy efficiency, relative driving force, heat transfer rate and heat resistances is considered. In all cases, results are argued graphically. Finally, a case study inspected by obtained results.

Keywords : heat transfer, exergy losses, exergetic efficiency, driving forces

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