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SCIENTIFIC & RESEARCH PROJECTS

Project No.: 03 **Year: 1991**

Project Field: Heat Exchanger Networks (HENs)

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Project Title:

Interfacing HEN Synthesis and Heat Exchanger Detailed Design

Abstract:

Current heat exchanger network synthesis targeting and design procedures involved the use of assumed stream heat transfer coefficients. However, during detailed heat exchanger design, allowable pressure drops are often the most critical factors. The result can be big differences between the exchanger sizes and costs anticipated by the network designer and those realized by the exchanger designer. This in turn prejudices and optimization attempted at the network design stage. In this paper it is shown how allowable pressure drop can be used as a basis of network design and consistency between expectation and realization achieved.