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Kern dq process heat transfer

Ann Marie Flynn, PhD, was the first female Manhattan College graduate to return as a full-time faculty member and served as department chair and graduate program director for 27 years in the chemical engineering department, earning multiple awards. She used Donald Q. Kern's text for 16 years while teaching Heat Transfer and wrote the second edition to bring his straightforward approach to heat exchanger design to the next generation of engineers. Toshihiro Akashige, a Manhattan College alumnus currently pursuing his PhD in chemical and biomolecular engineering at New York University Tandon School of Engineering, enjoyed Dr. Flynn's process heat transfer class and co-authored this textbook with her, hoping that Dr. Kern's methodology will help students gain confidence in heat exchangers. Louis Theodore, a retired professor of chemical engineering (50 years), is the author of several publications and contributor to Perry's Chemical Engineers' Handbook. Book remains vital & relevant. This new edn is a great addn to chemical engineering literature. As wth clasic 1st edn, this book cn b used as refrence book for practising engineer or textbook for undergraduate/graduate engineering student. Book was excellntly updated by team of experts."—Rita L. D'Aquino, Former Senior Editor of Chemical Engineering Magazine This edn ensures legacy of original 1950 classic, Process Heat Transfer, by Donald Q. Kern that by many is held to be gold standard.This edn is divided into three parts: Fundamental Principles; Heat Exchangers; and Other Heat Transfer Equipment/Considerations. Part I deals wth introductory topics required when solving heat transfer problems. This part of book covers topics such as steady-state heat conduction, unsteady-state conduction, forced convection, free convection, and radiation.Part II is considered by authors to be "meat" of book, primary reason for undertaking project. Part II remains relatively unchanged from 1st edn except for minor updates. It includes Kern's original design methodology for double-pipe, shell-and-tube, and extended surface heat exchangers. Part II also covers boiling and condensation, boilers, cooling towers and quenchers, as well as newly designed open-ended problems.Part III examines other related topics of interest, including refrigeration and cryogenics, batch and unsteady-state processes, health & safety, and risk assessment. In addition, part includes impact of entropy calculations on exchanger design.A 36-page Appendix includes 12 tables of properties, layouts and design factors. Given text content here Theodore has written numerous technical books, such as Fluid Flow for Chemical Engineers and Thermodynamics Essentials, designed for practical applications in his field. He has also co-authored key chapters within the renowned "Perry's Chemical Engineers' Handbook".

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