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Sommario/riassunto

Practical Handbook of Thermal Fluid Science is an essential guide for engineering students to practical experiments and methods in fluid mechanics. It presents the topic of practical fluid physics in a simple, clear manner by introducing the fundamentals of carrying out experiments and operational analysis of systems that are based on fluid flow. The information enables readers to relate principles in thermal fluid science with the real world operation of important instruments that greatly impact our daily life, such as power generators, air conditioners, refrigerators, engines, flow meters, airplanes, among others. Key Features:- A simple organized chapter layout that focuses on fundamental and practical information about thermal fluid science experiments and equipment- Provides an introduction to essential knowledge for analysis and evaluation of practical systems and major inventions- Presents information about analysis of operating data for power plant efficiency - Detailed chapters for studying and testing wind tunnels, sphere heating/cooling, pipe flow, engines, and refrigerators/heat pumps are provided -Experimental data of Venturi and orifice plate flow meters are provided to show step by step calibration and experimentation. - Presents information on report preparation- Includes multiple appendices to consolidate practical information for readers for quick reference. Audience: Students and teachers in mechanical engineering programs

or any courses that have modules on fluid mechanics, heat transfer and practical thermodynamics.