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Nota di contenuto	Introduction to Thermo-FluidsSystems Design; Contents; Preface; List of Figures; List of Tables; List of Practical Notes; List of Conversion Factors; 1 Design of Thermo-Fluids Systems; 1.1 Engineering Design-Definition; 1.2 Types of Design in Thermo-Fluid Science; 1.3 Difference between Design and Analysis; 1.4 Classification of Design; 1.5 General Steps in Design; 1.6 Abridged Steps in the Design Process; 2 Air Distribution Systems; 2.1 Fluid Mechanics-A Brief Review; 2.1.1 Internal Flow; 2.2 Air Duct Sizing-Special Design Considerations; 2.2.1 General Considerations 2.2.2 Sizing Straight Rectangular Air Ducts2.2.3 Use of an Air Duct Calculator to Size Rectangular Air Ducts; 2.3 Minor Head Loss in a Run of Pipe or Duct; 2.4 Minor Losses in the Design of Air Duct Systems-Equal Friction Method; 2.5 Fans-Brief Overview and Selection Procedures; 2.5.1 Classification and Terminology; 2.5.2 Types of Fans; 2.5.3 Fan Performance; 2.5.4 Fan Selection from Manufacturer's Data or Performance Curves; 2.5.5 Fan Laws; 2.6 Design for Advanced Technology-Small Duct High-Velocity (SDHV) Air Distribution Systems; Problems; References and Further Reading

Sommario/riassunto	A fully comprehensive guide to thermal systems design covering fluid dynamics, thermodynamics, heat transfer and thermodynamic power cycles Bridging the gap between the fundamental concepts of fluid mechanics, heat transfer and thermodynamics, and the practical design of thermo-fluids components and systems, this textbook focuses on the design of internal fluid flow systems, coiled heat exchangers and performance analysis of power plant systems. The topics are arranged so that each builds upon the previous chapter to convey to the reader that topics are not stand-alone i