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Sommario/riassunto

This book examines the full spectrum of compressor types, how they operate, how to control them, and how operating conditions can significantly impact their performance. Discussed in detail are the influence of pressure, temperature, molecular weight, specific heat ratio, compression ratio, speed, vane position, and volume bottles. The various methods of throughput control are also addressed, including discharge throttling, suction throttling, guide plate positioning, volume, bottles, suction valve unloaders, speed control, as well as how each of these control methods affects compressor life. Compressor surge is defined and discussed in detail, along with the types of instrumentation (controllers, valves, pressure, and temperature transmitters) available, and which of those are most suitable for controlling surge. Case studies have been included to illustrate the principles covered in the text. This edition also includes detailed information on compressor seals. Various types of seals providing the best results for different applications are discussed, thereby giving the reader a basic understanding of seal types and applications.
