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Impulse Function and Thrust; 6.2 Area Velocity Relation; 6.3 Geometric Choking; 6.4 Area Mach number Relation for Choked Flow; 6.5 Mass Flow Rate for Choked Flow; 6.6 Flow Through A Convergent Nozzle; 6.7 Flow Through A Convergent Divergent Nozzle; 6.8 Interaction between Nozzle Flow and Fanno, Rayleigh Flows; Exercises; Chapter 7: Oblique Shock Waves; 7.1 Governing Equations; 7.2 M curve; 7.3 Illustration of the Weak Oblique Shock Solution on a T-s diagram; 7.4 Detached Shocks; 7.5 Reflected Shocks
7.5.1 Reflection from a Wall Exercises; Chapter 8: Prandtl Meyer Flow; 8.1 Propagation of Sound Waves and the Mach Wave; 8.2 Prandtl Meyer Flow Around Concave and Convex Corners; 8.3 Prandtl Meyer Solution; 8.4 Reflection of Oblique Shock From a Constant Pressure Boundary; Exercises; Chapter 9: Flow of Steam through Nozzles; 9.1 T-s diagram of liquid water-water vapor mixture; 9.2 Isentropic expansion of steam; 9.3 Flow of steam through nozzles; 9.3.1 Choking in steam nozzles; 9.4 Supersaturation and the condensation shock; Exercises; Suggested Reading; Table A. Isentropic table for $\gamma = 1.4$
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Sommario/riassunto

Fundamentals of Gas Dynamics, Second Edition is a comprehensively updated new edition and now includes a chapter on the gas dynamics of steam. It covers the fundamental concepts and governing equations of different flows, and includes end of chapter exercises based on the practical applications. A number of useful tables on the thermodynamic properties of steam are also included. Fundamentals of Gas Dynamics, Second Edition begins with an introduction to compressible and incompressible flows before covering the fundamentals of one dimensional flows and normal shock waves. Flows with heat additi

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