



ASME INTERNATIONAL STEAM TABLES FOR INDUSTRIAL USE

THIRD EDITION



PREFACE TO SECOND EDITION

This Second Edition presents the same properties of water and steam as the First Edition (published in 2000), with two exceptions. In 2007, the International Association for the Properties of Water and Steam (IAPWS) adopted a new formulation for the high-temperature Region 5, extending the pressure range of validity of Region 5 from 10 MPa to 50 MPa in order to cover conditions that might be encountered in some proposed new power cycles. The new Region 5 formulation is reflected in new Tables S-4 and U-4. Also, in 2008, IAPWS adopted a new formulation for the viscosity of water and steam. This is reflected in new Tables S-8, S-10, U-8, and U-10, along with new Figures S-2, S-3, S-5, U-2, U-3, and U-5. We also took the opportunity to correct a few typographical errors and to update some of the background text and references.

ASME Research and Technology Committee on Water and Steam
in Thermal Systems, Subcommittee on Properties of Steam

Richard D. Harwood, Chair
Allan H. Harvey, Secretary

September 2008

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The main update for this Third Edition is the incorporation of the new IAPWS formulation adopted in 2011 for the thermal conductivity of water and steam. This is reflected in new Tables S-9, S-10, U-9, and U-10, along with new Figures S-4, S-5, U-4, and U-5 and revision of Appendix B. The thermodynamic property information is unchanged from the Second Edition. We also made minor updates to some of the background text and references. We thank Prof. H.-J. Kretzschmar for his assistance with the thermal conductivity calculations.

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