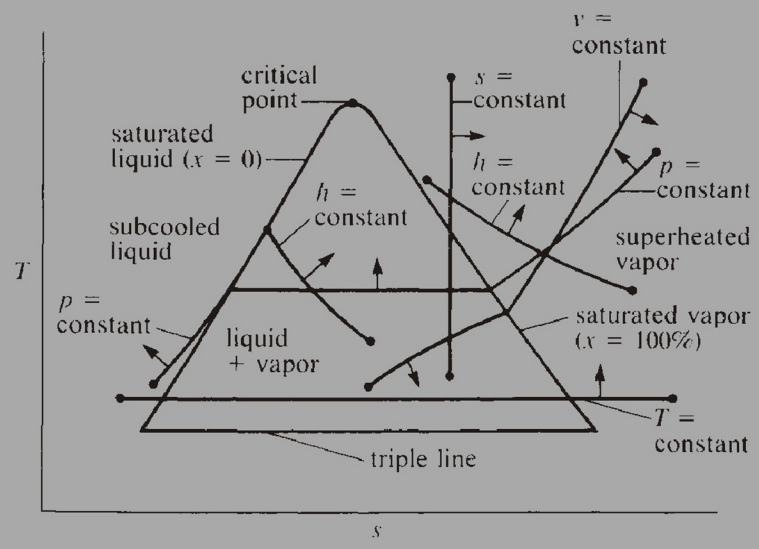
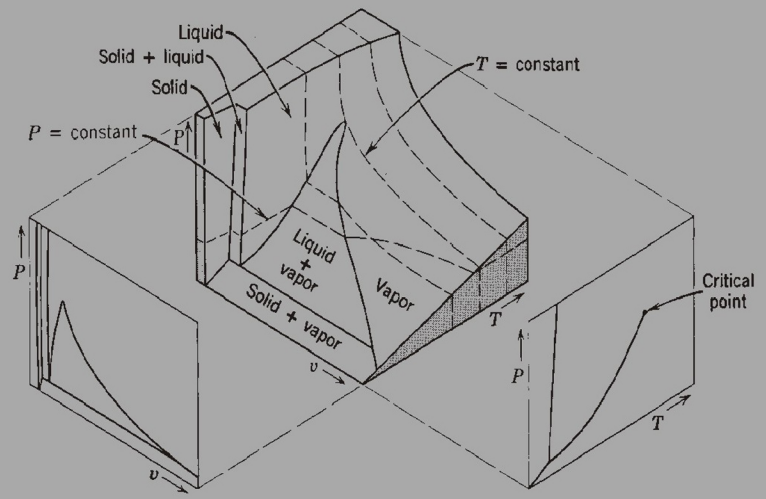
R.K. Purohit



Engineering Thermodynamics



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ENGINEERING THERMODYNAMICS

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PREFACE

Thermodynamics is a core subject which has wider application in different disciplines of engineering science. Hence there is a legitimate demand for dependable textbook cum reference book on this subject. In my humble venture I have tried to present the difficult concepts of thermodynamics in a lucid language so that it becomes easier for learners to digest it and enable them to apply these principles in solving practical problems that would crop up when they are called upon to work in their respective fields.

In order to make the subject still easier for the students a large number of illustrative examples are included in the text. It is my hope that when students study the theory, see its application in examples, and perform similar analyses, they will be able to understand and apply principles of thermodynamics.

My publisher Shri Pawan Kumar deserves my thanks for making this publication possible in a record time.

I express my deep gratitude to my father late Professor B.K. Purohit (Structural Engineering), who tirelessly worked throughout his life as a true teacher, a simple man possessing insatiable thirst for knowledge.

02-12-2007 **R.K. PUROHIT**

ENGINEERING THERMODYNAMICS
R.K. PUROHIT

About the Book

This book an Engineering Thermodynamics presents the principles and applications of the subject and covers the entire syllabus prescribed by various universities for undergraduate students.

Needles to emphasise, this new book has been designed as a self learning capsule. With this aim the material has been organised in a logical order with lots of illustrative examples to enable students to thoroughly master the subject.

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He is a life member of TSI, a member of ASME, ASCE, ASAE and Combustion Engineering. He has guided 51 Seminars and 58 Dissertations at post graduate level. At least 27 papers have been published in different National and International Journals. He has authored 10 books namely:

1. Fluid Mechanics and Fluid Machines co-author with Dr. M.L. Mathur Ex. Vice chancellor JNV University, (1982); 2. Thermal Engineering (1991, 2007); 3. Fundamentals of Fluid Mechanics (1996); 4. Gas Dynamics (1997); 5. Mechanical Engineering (2001); 6. Fluid Power Engineering (2002); 7. Foundation of Mechanical Engineering (2004); 8. Fundamentals of Mechanical Engineering (2005); 9. Material Science and Processes (2005) and 10. Hydraulic Machines (2007).

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