Pressure Vessel Design

Guides & Procedures

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In The Name of God

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Preface

In this modern age of industrial competition, a successful pressure vessel designer needs more than a knowledge and understanding of the fundamental sciences and the related mechanical engineering subjects. He must also have the ability to apply this knowledge to practical situations for the purpose of accurate and beneficial design of a pressure vessel. To achieve this goal, the present book "Pressure Vessel Design, Guides & Procedures" is co-authored by a group of well experienced mechanical engineers who are working in the mechanical department of a company active in petrochemical industry named Hampa Energy Engineering & Design Company, HEDCO (www.hedcoint.com).

The main purpose of this book is to present guides, procedures, and design principles for pressure vessels to enhance the understanding of designing process in this field. The economical pressure vessel design can only be accomplished through the application of various theoretical principles combined with industrial and practical knowledge. Therefore, both theory and practice are emphasized in this book and different aspects of pressure vessel requirements are included. The book contains 10 chapters to cover all parts of designing and testing. To its advantages, each designing chapter includes some flowcharts as guides to illustrate a stepwise sequence of the design. Moreover, the designing chapters are supported by an example to clarify each step for designers. Consequently, the designing steps are instructed and outlined using PV-Elite software which can pave the way for the designers to use the software to ease their calculations.

Furthermore, the book would not only be suitable for pressure vessel designers, but also educators and students can use it in their courses. It is assumed that the readers have a background in mechanical and material engineering. The coherent SI system is mostly used as the unit for formulas and calculations of the book. Every effort has been made to assure the preciseness and credibility of the data contained herein. However, it is worthy to note that the authors assume no responsibility against the designs based on the presented formulas.

It is hoped that this book will meet all the requirements for pressure vessel technologist and designers and also, can bridge the gaps in pressure vessel designing industry in this technology driven world. The authors are indebted to many industrial and informative books and references, and individuals who have supplied information and comments on the materials presented in this book. It has been attempted to preserve all the rights for the referenced articles and books all through the compilation stages.

Authors Committee
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This book "**Pressure Vessel Design, Guides & Procedures**" is compiled and authored by a group of mechanical engineers active in pressure vessel design projects and trainings (www.pv-book.com). The authors and compilers committee members are listed below:

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