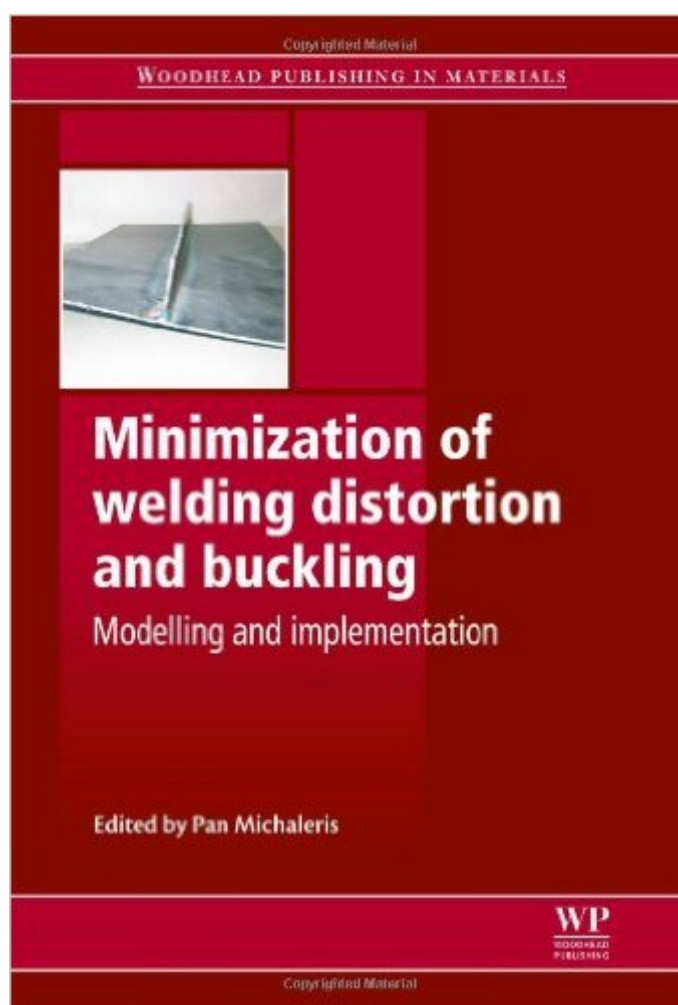


The book was found

# Minimization Of Welding Distortion And Buckling: Modelling And Implementation (Woodhead Publishing Series In Welding And Other Joining Technologies)



## Synopsis

Welding is a cost-effective and flexible method of fabricating large structures, but drawbacks such as residual stress, distortion and buckling must be overcome in order to optimize structural performance. Minimization of welding distortion and buckling provides a systematic overview of the methods of minimizing distortion and buckling in welded structures. Following an introductory chapter, part one focuses on understanding welding stress and distortion, with chapters on such topics as computational welding mechanics, modelling the effect of phase transformations on welding stress and distortion and using computationally efficient reduced-solution methods to understand welding distortion. Part two covers different methods of minimizing welding distortion. Chapters discuss methods such as differential heating for minimizing distortion in welded stiffeners, dynamic thermal tensioning, reverse-side heating and ways of minimizing buckling such as weld cooling and hybrid laser arc welding. With its distinguished editor and international team of contributors, Minimization of welding distortion and buckling is an essential reference for all welders and engineers involved in fabrication of metal end-products, as well as those in industry and academia with a research interest in the area. Provides a systematic overview of the methods of minimizing distortion and buckling in welded structures. Focuses on understanding welding stress and distortion featuring computational welding mechanics and modelling the effect of phase transformations. Explores different methods of minimizing welding distortion discussing differential heating and dynamic thermal tensioning.

## Book Information

Series: Woodhead Publishing Series in Welding and Other Joining Technologies

Hardcover: 308 pages

Publisher: Woodhead Publishing; 1 edition (June 8, 2011)

Language: English

ISBN-10: 184569662X

ISBN-13: 978-1845696627

Product Dimensions: 6.4 x 1 x 9.2 inches

Shipping Weight: 1.4 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #635,477 in Books (See Top 100 in Books) #16 in [Books > Engineering & Transportation > Engineering > Materials & Material Science > Fracture Mechanics](#) #87 in [Books > Engineering & Transportation > Engineering > Mechanical > Welding](#) #151 in [Books >](#)

Engineering & Transportation > Engineering > Materials & Material Science > Metallurgy

[Download to continue reading...](#)

Minimization of Welding Distortion and Buckling: Modelling and Implementation (Woodhead Publishing Series in Welding and Other Joining Technologies) Dental Biomaterials: Imaging, Testing and Modelling (Woodhead Publishing Series in Biomaterials) Sensor Technologies for Civil Infrastructures: Sensing Hardware and Data Collection Methods for Performance Assessment (Woodhead Publishing Series in Electronic and Optical Materials) 3D Printing: The Ultimate 3D Printing Guide! (3D Printers, 3D Modelling, 3D Plotting) (3D Printing, 3D Printers, 3D Modelling, 3D Plotting) Modelling the T-55 Main Battle Tank (Osprey Modelling) Waste Electrical and Electronic Equipment (WEEE) Handbook (Woodhead Publishing Series in Electronic and Optical Materials) Advances in Powder Metallurgy: Properties, Processing and Applications (Woodhead Publishing Series in Metals and Surface Engineering) Superplasticity and Grain Boundaries in Ultrafine-Grained Materials (Woodhead Publishing Series in Metals and Surface Engineering) Laser Surface Engineering: Processes and Applications (Woodhead Publishing Series in Electronic and Optical Materials) Computer Design of Diffractive Optics (Woodhead Publishing Series in Electronic and Optical Materials) Biocompatibility and Performance of Medical Devices (Woodhead Publishing Series in Biomaterials) Therapeutic Protein Drug Products: Practical Approaches to formulation in the Laboratory, Manufacturing, and the Clinic (Woodhead Publishing Series in Biomedicine) The Coal Handbook: Towards Cleaner Production: Coal Production (Woodhead Publishing Series in Energy) Biomaterials for Artificial Organs (Woodhead Publishing Series in Biomaterials) Pollution Prevention and Waste Minimization in Laboratories How to Become a Spy: A Guide to Developing Spy Skills and Joining the Elite Underworld of Secret Agents and Spy Operatives How to Be a Hippie: Your Guide to Joining the Hippie Community, Learning about the Hippie Movement, and Discovering True Hippie Culture Fact, Fiction, and Flying Saucers: The Truth Behind the Misinformation, Distortion, and Derision by Debunkers, Government Agencies, and Conspiracy Conmen Plutocrats United: Campaign Money, the Supreme Court, and the Distortion of American Elections Legend of the distortion

[Dmca](#)