

## BOOK REVIEWS

### C. SCRUTON: An Introduction to Wind Effects on Structures

Engineering Design Guides No. 40. Oxford University Press 1981. 79 pp. £ 12.5

Due to extension of lightweight structures and progress of design methods the wind effects on buildings and structures become more and more important. The wind forces in addition to static load oscillations of buildings and structures can excite which can cause overstress and collapse or failure from fatigue. That is why Scruton's book possess present interest, introducing engineers engaged in design of buildings and structures to most important concepts of wind effects. The book can be utilized as a guide treating of the basic physical knowledge, the technical consequences and use in the engineering practice. The size of the book did not permit the complete treatment of all problems involved but references to extensive bibliography and data sources help the reader to find the necessary information. The first part of the book is dealing with the features of flow around bluff bodies and the characteristics of atmospheric winds. Three chapters are treating the wind effects on buildings and structures, namely the steady, time-average wind loading, the dynamic response of flexible structures to turbulent winds and the wind exciting oscillations of structures caused by vortex shedding, stall hysteresis and flutter. The book ends with summary of wind shelter application and survey of technics of wind-tunnel investigations. In Appendix some experiences on the aerodynamic stability of bridges are summarized.

To readers interested in design of buildings and structures this book can be of great assistance.

T. LAJOS

### G. BOOTHROYD, C. POLI, L. E. MURCH: Automatic Assembly

Manufacturing Engineering and Materials Processing Vol. 6. Marcel Dekker, Inc. New York and Basel, 1982. 378 pp.

Automatic assembly is a vital part of the manufacturing process. Reliable, cost-efficient procedures are important to increasing productivity, making better use of labor, and creating more consistent products. Design and manufacturing engineers need a unified, analytical approach to automatic assembly so that they can apply the latest techniques to their own companies' needs.

Automatic Assembly is a uniquely practical approach to the fundamentals of this process. The book contains in-depth treatments of feeding and orienting devices, the economics of assembly systems, and the design of assembly machines. Case studies and problems accompany the material so that the reader has a self-contained reference guide that can be used on a daily basis.

The chapter, dealing with the assembly robots, seems to be a little epigrammatic, considering the growing importance.

However, Automatic Assembly is the book, design and manufacturing engineers should own for the advancement of their knowledge of automatic assembly procedures. Graduate students of manufacturing engineering will benefit enormously from this book's systematic approach as they prepare for their professional careers.

G. ARZ