



AUSTRALIAN STEEL INSTITUTE

WORKED EXAMPLES FOR STEEL STRUCTURES

**according to strength limit states of
AS 4100—1998 with Amdt. 1, 2012**

FOURTH EDITION

by

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PREFACE TO THE FOURTH EDITION

The introduction of a new design standard inevitably brings with it some difficulties for practising engineers who have to learn of new or revised rules and their application in the design phase. In AS 4100—1990, Australia had a limit states design standard for steel structures which introduced not only a dramatic change of philosophy embodied in a limit states format, but also a significant technical updating reflecting research and testing of steel structures in the previous two decades. To facilitate the transition from the previous working stress method to the new limit states standard AS 4100—1990, AISC presented the first edition of this manual of worked examples to AS 4100 to assist designers in coming to grips with the new standard as easily and quickly as possible.

Subsequent editions have incorporated changes to match those made in the standard, including those of the current AS 4100—1998, as amended in 2012. At the same time, new material has been added in response to enquiries from teachers and practising engineers and students, including an example on checking a portal frame rafter, a new chapter on connectors to assist in the design of bolt and weld groups, examples of the use of high strength steels, and an example of checking the flexural-torsional buckling of a compression member.

We believe that this manual will continue to provide a current and comprehensive teaching tool for the limit states design of steel structures to AS 4100, as well as being a valuable resource for the designers of steel structures.

Comments or enquiries on this publication may be addressed to the Australian Steel Institute via the recently developed web based eForum facility. Every publication, seminar and talk that ASI sponsors has or will have a corresponding thread on the ASI eForum. Users are encouraged to log into the eForum and provide feedback on this publication. The eForum is located off our website at <http://steel.org.au/forum/>

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