

AS 1855—1976

Australian Standard[®]

**METHODS FOR THE DETERMINATION OF
TRANSVERSE TENSILE
PROPERTIES OF ROUND
STEEL PIPE**

The following scientific, industrial and governmental organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Aluminium Development Council
Associated Chambers of Manufactures of Australia
Australian Institute of Metals
Bureau of Steel Manufacturers of Australia
Department of Defence
Department of Industry and Commerce
Metal Trades Industry Association of Australia
National Association of Testing Authorities
National Measurement Laboratory
Railways of Australia Committee
Society of Automotive Engineers — Australasia
Universities

This standard, prepared by Committee MT/6, Mechanical Testing of Metals, was approved on behalf of the Council of the Standards Association of Australia on 15 October 1975, and was published on 1 May 1976.

Review of Australian Standards. *To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up to date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.*

Full details of all Australian Standards and related publications will be found in the Standards Australia Catalogue of Publications; this information is supplemented each month by the magazine 'The Australian Standard', which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.

Suggestions for improvements to Australian Standards, addressed to the head office of Standards Australia, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.

This standard was issued in draft form for comment as DR 72064.

AS 1855—1976

Australian Standard®

**METHODS FOR THE DETERMINATION OF
TRANSVERSE TENSILE
PROPERTIES OF ROUND
STEEL PIPE**

First published 1976

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
1 THE CRESCENT, HOMEBUSH, NSW 2140

ISBN 0 7262 0883 3

PREFACE

This standard was prepared by the Association's Committee on Mechanical Testing of Metals. It provides for the use of an expansion test as a means of determining the effective circumferential yield stress of a pipe.

The test is based on AS 1391, Methods for Tensile Testing of Metals, and ASTM A370, Mechanical Testing of Steel Products, Supplement II, Steel Tubular Products, the latter being specified in American Pipe Industry Standards.

Whereas ASTM A370 only permits the use of short-length test pieces, this standard includes provision for the use of long-length test pieces which may also be used for the performance of a pressure proving test for demonstrating that a length of pipe has a yield stress above a specified minimum without the result being influenced by test piece preparation.

This standard requires reference to the following Australian standards:

AS 1391 Methods for Tensile Testing of Metals

AS 1545 Method for the Calibration and Grading of Extensometers

AS B128 Methods for the Verification of Testing Machines.*

* In course of revision.

CONTENTS

METHOD	<i>Page</i>
1 Scope	4
2 Application	4
3 Principle of Test	4
4 Definitions	5
5 Notation	6
6 Test Piece	7
7 Accuracy of Measurement and Testing Equipment	8
8 Temperature of the Test Piece	9
9 Procedure	9
10 Straining Rate	9
11 Determination of Properties	9
12 Proving Test for Permanent Set Stress	11
13 Record of Results	11
14 Report	11
APPENDICES	
A Test Equipment	12
B Determination of Non-proportional and Total Elongation Proof Stresses	13
C Notes on Safety	14
D Extensometers	15
E Relationship between Stress and Pressure	18
F Record of Results	19

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-