

AS 1769—1975

Reconfirmed 2018

Australian Standard[®]

**WELDED STAINLESS
STEEL TUBES
FOR PLUMBING APPLICATIONS**

METRIC UNITS

This standard, prepared by Committee WS/19, Stainless Steel Tube for Water, Gas and Sanitation, was approved on behalf of the Council of the Standards Association of Australia on 6 May 1975.

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

Associated Chambers of Manufactures of Australia
Brisbane City Council
Department of Housing and Construction
Provincial Sewerage Authorities Association, Victoria
The Institute of Plumbing, Australia
Water, Sewerage and Drainage Authorities

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This standard was issued in draft form for public review as Doc. 1789.

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 1769–1975

Welded stainless steel tubes for plumbing applications

RECONFIRMATION NOTICE

Major stakeholders of this publication have reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 29 August 2018.

NOTES

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FOR PLUMBING APPLICATIONS**

First published 1975

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

ISBN 0 7262 0605 9

PREFACE

This standard was prepared by the Association's Committee on Stainless Steel Tubes for Water, Gas and Sanitation at the request of manufacturers of the tubes. The text of the standard is based on BS 4127: Part 2, Light Gauge Stainless Steel Tubes, the major differences being in the range of nominal tube sizes, chemical composition of the material and testing requirements.

This standard makes reference to the following standards:

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|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| AS 1000 | The International System of Units (SI) and Its Application |
| AS 1391 | Methods for the Tensile Testing of Metals |
| AS 1585 | Capillary Fittings for Use in Water Supply and Hot Water Services |
| AS 1645 | Copper Alloy Compression Fittings For Use in Water Supply and Hot Water Services |
| AS G31 | Stainless and Heat-resisting Steel Plate, Sheet and Strip of AISI-SAE Standard Steels Type (Coils and Cut Lengths) |
| BS 3889 | Methods for Non-destructive Testing of Pipes and Tubes Part 2A—Eddy Current Testing of Ferrous Pipes and Tubes |
| ASTM A450 | Carbon, Ferritic Alloy and Austenitic Steel Tube Specification For General Requirements |
| ASTM E426 | Recommended Practice for Electromagnetic (Eddy Current) Testing of Seamless and Welded Tubular Products, Austenitic Stainless Steel and Similar Alloys. |

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard Specification
for
WELDED STAINLESS STEEL TUBES
FOR PLUMBING APPLICATIONS

1 SCOPE. This specification applies to welded stainless steel tubes for use in plumbing installations, in nominal sizes 10 mm up to and including 100 mm, and suitable for connection by means of capillary fittings complying with AS 1585, Capillary Fittings for Use in Water Supply and Hot Water Services, and by compression fittings complying with AS 1645, Copper Alloy Compression Fittings for Use in Water Supply and Hot Water Services.

2 DEFINITIONS. For the purpose of this specification the following definition applies:

Mean outside diameter—half the sum of two outside diameters at right angles to each other on one cross-section of the tube.

3 DESIGNATION. Stainless steel tubes shall be designated by the nominal size given in column 1 of Table 1, which is related to the outside diameter. Designated sizes do not necessarily indicate exact dimensions as these details are given in other columns of Table 1.

4 MATERIAL. The tubes shall be manufactured from stainless steel strip complying with AS G31*, Grade 304.

5 MANUFACTURE. Tubes shall be welded without filler metal by an automatic welding process producing a continuous full penetration weld. Tubes shall be supplied in straight lengths and ends shall be cut clean.

6 DIMENSIONS AND TOLERANCES. The dimensions of the tubes shall conform to the following tolerances:

- (a) *Diameter.* The mean outside diameter shall be within the limits specified in columns 3 and 4 of Table 1. The maximum and minimum diameters shall be within the limits specified in columns 5 and 6 of Table 1.
- (b) *Thickness.* The thickness of the tube at any point shall be within the limits specified in columns 7 and 8 of Table 1.
- (c) *Length.* Tubes ordered to a specified length shall not vary from that length by more than the amount of tolerance specified in Table 2. Tubes of other than specified lengths may be supplied as agreed between purchaser and manufacturer.

* AS G31 Stainless and Heat-resisting Steel Plate, Sheet and Strip of AISI-SAE Standard Steels Type (Coils are Cut Lengths)