AS 4181-1994 1999 ed. Australian Standard® Stainless steel clamps for waterworks purposes



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Australian Chamber of Commerce and Industry

Brisbane City Council

Department of Local Government, Qld

Hunter Water Corporation

Institution of Engineers Australia

Melbourne Water

Metal Trades Industry Association of Australia

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# Australian Standard®

# Stainless steel clamps for waterworks purposes

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### PREFACE

This Standard was prepared by the Standards Australia Committee WS/16 on Cast Iron Pressure Pipes and Fittings in participation with water authorities in Australia and industry in general to establish requirements for stainless steel clamps.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

Support and contribution is acknowledged from water authorities, manufacturers and importers.

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# STANDARDS AUSTRALIA

# **Australian Standard**

# Stainless steel clamps for waterworks purposes

1 SCOPE This Standard specifies the requirements for stainless steel clamps for waterworks purposes.

2 APPLICATION Stainless steel clamps complying with this Standard are intended for use in the repair or tapping of water supply pipelines of the sizes designated in Table 5.1, with a maximum service temperature of 60°C up to a working pressure of 2 MPa for clamps up to and including DN 300, and 1.2 MPa above DN 300.

3 **REFERENCED DOCUMENTS** The following documents are referred to in this Standard:

AS

- 1111 ISO metric hexagon commercial bolts and screws
- 1112 ISO metric hexagon nuts, including thin nuts, slotted nuts and castle nuts
- 1252 High strength steel bolts with associated nuts and washers for structural engineering
- Bourdon tube pressure and vacuum gauges
- 1449 Wrought alloy steels—Stainless and heat-resisting steel plate, sheet and strip
- 1554 Structural steel welding
- 1554.6 Part 6: Welding stainless steel for structural purposes
- 1722 Pipe threads of Whitworth form
- 1722.2 Part 2: Fastening pipe threads
- 2205 Methods of destructive testing of welds in metal
- 2205.10.1 Part 10.1: Corrosion tests—Corrosion test for welded austenitic stainless steel
- 2837 Wrought alloy steels—Stainless steel bars and semi-finished products
- 3855\* Suitability of plumbing products for contact with potable water

4087 Metallic flanges for waterworks purposes

4 **DEFINITIONS** For the purpose of this Standard, the definitions below apply.

4.1 Maximum working temperature—the maximum internal or external temperature to which the clamp is exposed in service.

4.2 Size range—the range of outside diameters of pipe for which the clamp is designed.

**4.3** Stainless steel clamp—an elastomer-lined metal sheet with an integral clamping system designed for repair of pipes and providing seal and support for tapping.

4.4 Tapping clamp—an off-take in flange or socket design which retains the integrity of the full circumferential seal.

**4.5 Working pressure**—the internal working pressure which may be applied to the clamp either as a continuous pressure or peak pressure during normal operation.

<sup>\*</sup> First published as an Interim Standard.