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Australian Standard®

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**Water supply—Copper and copper alloy compression and capillary fittings and threaded end connectors**

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**AS 3688—1994**

**Water supply—Copper and copper alloy body compression and capillary fittings and threaded-end connectors**

*(In Professional Packages 50E, 61A, 61B)*

34pp H

Specifies requirements for copper and copper alloy body pipe fittings and threaded-end connectors for use in water supply systems where the normal working temperature does not exceed 95°C, with maximum peaks of 110°C for short periods of time, and where the continuous working pressure ranges up to a maximum of 1.4 MPa for all fittings other than capillary fittings manufactured from copper tube.

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STANDARDS AUSTRALIA



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The following interests are represented on Committee WS/1:

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Australian Design and Technology Association  
Australian Valve Manufacturers Association  
Board of Works, Melbourne  
Brisbane City Council  
Confederation of Australian Industry  
Department of Local Government, Qld  
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Australian Standard®

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**Water supply—Copper and copper alloy compression and capillary fittings and threaded end connectors**

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First published as AS 3688—1990.

## PREFACE

This Standard was prepared by the Standards Australia Committee on Brass Water Fittings, to supersede AS 1585—1982, *Capillary and brazing fittings of copper and copper alloy*, AS 1590—1982, *Copper alloy threaded pipe fittings for use with tubes threaded with pipe threads of Whitworth form*, and AS 1645—1974, *Copper and copper alloy compression fittings for use in water supply and hot water services*.

The history of the Standards which have been revised and amalgamated to form this Standard is as follows:

- (a) AS 1585 originally published as AS B181 in 1969, revised and redesignated as AS 1585 in 1973, and further revised in 1976 and 1982.
- (b) AS 1590 originally published as AS B37 in 1931, revised in 1969, revised and redesignated as AS 1590 in 1974, and further revised in 1977 and 1982.
- (c) AS 1645 originally published as AS B36 in 1931, revised in 1969, and revised and redesignated as AS 1645 in 1974.

Provision has been made to rationalize dimensions, thread lengths vary from ISO 117 in that they have been slightly reduced, but minimum external thread lengths have been maintained. Emphasis has been placed on dezincification requirements and the concept of performance format and testing has been introduced.

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## STANDARDS AUSTRALIA

## Australian Standard

**Water supply—Copper and copper alloy compression and capillary fittings and threaded end connectors**

## SECTION 1. SCOPE AND GENERAL

**1.1 SCOPE.** This Standard specifies requirements for copper and copper alloy pipe fittings and connectors for use in water supply systems where the normal working temperature does not exceed 95°C, with maximum peaks of 110°C for short periods of time, and the continuous working pressure ranges up to a maximum of 1.4 MPa as defined by the fittings size.

**1.2 APPLICATION.** Fittings, end connectors, and couplings shall comply with Sections 1 to 4 and with Sections 5 to 10 as follows:

SECTION 5 Capillary fittings.

SECTION 6 End connectors.

SECTION 7 Pipe union end connectors and couplings.

SECTION 8 Compression fittings.

SECTION 9 Other fittings.

SECTION 10 Marking.

**1.3 REFERENCED DOCUMENTS.** The documents referred to in this Standard are listed in Appendix J.

**1.4 DEFINITIONS.** For the purpose of this Standard, the definitions given in AS 1355 and those below apply.

**1.4.1 Threaded end connector**—a connecting end on a pipe or fitting that is threaded either on an internal surface or external surface so that it can be used to make a threaded joint.

**1.4.2 Union end connector**—a connecting end on a pipe or fitting that allows a union joint to be made.

**1.5 DESIGNATION OF SIZE.** The size by which a fitting is designated shall be the nominal size of the pipe(s) or tube(s) with which it is to be jointed. The method of specifying the sizes of fittings shall be in accordance with Appendix A and the method of determining the dimensions of the fittings shall be in accordance with Appendix B.

**NOTE.** Designated sizes do not necessarily indicate exact dimensions as these details are given in the relevant tables herein.