AS 3952—1991

Australian Standard®

Water supply—DN 80 spring hydrant valve for general purposes

This Australian Standard was prepared by Committee WS/22, Valves for Water Supply Purposes. It was approved on behalf of the Council of Standards Australia on 1 May 1991 and published on 12 July 1991.

The following interests are represented on Committee WS/22:

A.C.T. Electricity and Water
Association of Consulting Engineers Australia
Australian Valve Manufacturers Association
Board of Works, Melbourne
Brisbane City Council
Confederation of Australian Industry
Department of Public Works, N.S.W.
Engineering and Water Supply Department, S.A.
Hunter Water Board, N.S.W.
Metal Trades Industry Association of Australia
Rural Water Commission of Victoria
Society of Mechanical Engineers of Australasia
Victorian Chamber of Manufacturers
Water Authority of Western Australia
Water Board, Sydney— Illawarra—Blue Mountains
Water Resources Commission, Qld

This Standard was issued in draft form for comment as DR 89199.

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First published as AS 3952—1991.

Incorporating:
Amdt 1—1993

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

ISBN 0 7262 6937 9

PREFACE

This Standard was prepared by the Standards Australia Committee on Valves for Water Supply Purposes at the request of users and manufacturers.

In the past, a variety of spring hydrants were manufactured, however Water Authorities in Australia saw a need for a standard design. All authorities agreed to accept the NSW Government type 1384 design and drawing for DN 80 spring hydrant valves with either special protective coatings or with standard bitumen coating.

Provision has been made to rationalize dimensions where possible, but owing to the development of the valve for maximum performance interchangeability of components with existing installations, and compliance with Fire Authorities requirements critical dimensions are retained.

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STANDARDS AUSTRALIA

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE This Standard specifies requirements for flanged end grey or ductile cast iron spring hydrant valves with resilient seat for general water industry purposes in both buried and above ground installation. The valve is intended for use with potable water and is operated by means of the attachment of a standpipe.

NOTE: Guidelines for purchasers on requirements that need to be agreed upon at time of enquiry or order are given in Appendix A.

1.2 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
1237	Flat metal washers for general engineering purposes (metric series)
1449	Wrought alloy steels—Stainless and heat-resisting steel plate, sheet and strip
1565	Copper and copper alloys—Ingots and castings
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1627	Metal finishing—Preparation and pretreatment of surfaces
1627.4	Part 4: Abrasive blast cleaning
1646	Elastomeric seals for waterworks purposes
1830	Iron castings—Grey cast iron
1831	Iron castings—Spheroidal or nodular graphite cast iron
2345	Dezincification resistance of copper alloys
2837	Wrought alloy steels—Stainless steel bars and semi-finished products
3855(Int)	Suitability of plumbing products for contact with potable water
4087	Metallic flanges for waterworks purposes
BS	
3416	Specification for bitumen-based coatings for cold application, suitable for use in contact with potable water
4147	Specification for bitumen-based hot applied coating materials for protecting iron and steel, including suitable primers where required.

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

1.3.1 Class—the maximum working pressure of the valve expressed in hundreds of kilopascals.

1.3.2 Coating—a material that is applied to a surface at a specified minimum film thickness and is intended to protect it from corrosive elements or conditions.

1.3.3 Continuity—the quality of a coating that determines its freedom from those defects which increase its electrical conductivity.

1.3.4 Coating defect—a detectable weakness or discontinuity in a coating which would adversely affect its ability to protect the substrate from corrosion during its normal service life.

1.3.5 Holiday—a localized defect where parts of the substrate are uncoated. Such defects may not be visible to the naked eye.

1.3.6 Maximum working pressure—the maximum internal working pressure which may be applied to the valve either as a continuous or a transient peak pressure.

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

1.3.8 Pinhole—a defect represented by minute holes which may partly or fully penetrate the dry coating to the substrate. If present they invariably form during the application and curing of the coating material.

1.3.9 Spring hydrant valve—a valve in which a seal is achieved under normal operating conditions by a spring-loaded dome operated in conjunction with a resilient seat. The valve is operated by means of the attachment of a standpipe.