

Australian Standard[®]

SPA POOLS

Part 2—PRIVATE SPAS

This Australian standard was prepared by Committee CS/59, Spa Pools. It was approved on behalf of the Council of the Standards Association of Australia on 11 January 1983 and published on 7 March 1983.

The following interests were represented on the committee responsible for the preparation of this standard:

- Australian Consumers Association
 - Australian Institute of Health Surveyors
 - Confederation of Australian Industry
 - Council of Australasian Spa & Pool Associations Ltd
 - Department of Consumer Affairs, N.S.W.
 - Department of Health, N.S.W.
 - Department of Sport and Recreation, N.S.W.
 - Local Government Association of New South Wales
 - National Safety Council of Australia (S.A. Division)
 - Plastics Institute of Australia Inc.
 - Royal Australian Institute of Architects
-

Review of Australian Standards. To keep abreast of progress in industry, Australian Standards are subject to periodic revision 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which subscribing members receive, and which gives details of new publications, new editions and amendments, and of withdrawn Standards.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 81250.

Australian Standard[®]

SPA POOLS

Part 2—PRIVATE SPAS

First published 1983

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

ISBN 0 7262 2906 7

PREFACE

This standard was prepared by the Association's Committee on Spa Pools in response to a request from the Council of Australasian Spa and Pool Associations, which felt that the construction and installation of spa pools was not adequately provided for by existing standards.

The standard covers 'private spas', as defined in the standard. Public spas are covered by AS 2610, Part 1.

The need for suitable standards for safety, health and sound design and construction is felt to be all the more apparent in the light of the increasing popularity of spa pools. The health and safety of users of spas depends not only upon proper design and construction, but also upon vigilant supervision by operators and other sound operating procedures.

In the preparation of this standard, particular attention was given to safety aspects related to the use of spas, and the requirements of this standard have been based on the work of the U.S. National Swimming Pool Institute. However, a number of significant alterations have been made, in order to make the standard suitable for Australian conditions.

© Copyright — STANDARDS AUSTRALIA

Users of Standards are reminded that copyright subsists in all Standards Australia publications and software. Except where the Copyright Act allows and except where provided for below no publications or software produced by Standards Australia may be reproduced, stored in a retrieval system in any form or transmitted by any means without prior permission in writing from Standards Australia. Permission may be conditional on appropriate royalty payment. Requests for permission and information on commercial software royalties should be directed to the head office of Standards Australia.

Standards Australia will permit up to 10 percent of the technical content pages of a Standard to be copied for use exclusively in-house by purchasers of the Standard without payment of a royalty or advice to Standards Australia.

Standards Australia will also permit the inclusion of its copyright material in computer software programs for no royalty payment provided such programs are used exclusively in-house by the creators of the programs.

Care should be taken to ensure that material used is from the current edition of the Standard and that it is updated whenever the Standard is amended or revised. The number and date of the Standard should therefore be clearly identified.

The use of material in print form or in computer software programs to be used commercially, with or without payment, or in commercial contracts is subject to the payment of a royalty. This policy may be varied by Standards Australia at any time.

CONTENTS

	<i>Page</i>
SECTION 1. SCOPE AND GENERAL	
1.1 Scope	4
1.2 Referenced Documents	4
1.3 Definitions	4
SECTION 2. REQUIREMENTS	
2.1 Materials	6
2.2 Structural Design	6
2.3 Dimensional Design	6
2.4 Means of Exit and Entry	6
2.5 Heater and Temperature Requirements	6
2.6 Electrical Installation	7
2.7 Water Supply	7
2.8 Inlets, Outlets and Piping	7
2.9 Circulation Systems	7
2.10 Surface Skimming Systems	7
2.11 Filters	7
2.12 Pumps and Strainers	8
2.13 Valves	8
2.14 Air Injection Systems	8
2.15 Disinfectant and Chemical Treatment	8
2.16 Waste Water Disposal	8
2.17 Safety	8
APPENDICES	
A Chemical Operational Parameters	10
B Spa Heater Sizing for Outdoor Installations	12

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

for

SPA POOLS

PART 2 — PRIVATE SPAS

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard specifies requirements for the design, construction and operation of private spa pools intended for recreational use, as defined in Clause 1.3, that are either separately installed or form part of a swimming pool installation. It is not applicable to spas with a capacity of less than 680 L, commonly known as ‘spa baths’, or to spa pools that are used under the direction of medical personnel, such as hydrotherapy pools.

1.2 REFERENCED DOCUMENTS. The following documents are referred to in this standard:

AS 1159	Polyethylene (Polythene) Pipe for Pressure Applications
AS 1477	Unplasticized PVC (UPVC) Pipes and Fittings for Pressure Applications
AS 3000	SAA Wiring Rules
BS 5391	Specification for Acrylonitrile-butadiene-styrene (ABS) Pressure Pipe Part 1—Pipe for Industrial Uses
BS 5392	Specification for Acrylonitrile-butadiene-styrene (ABS) Fittings for Use with ABS Pressure Pipe Part 1—Fittings for Use with Pipe for Industrial Uses
AG 110	Approval Requirements for Swimming Pool Heaters*.

1.3 DEFINITIONS. For the purpose of this standard, the following definitions apply:

1.3.1 Abrasion hazard—a sharp or rough surface that would scrape the skin upon chance contact or in normal use.

1.3.2 Air injection system—a system whereby air (only) is forced into a flow ducting built into a spa floor, bench or other location. The air injection system is activated by a separate air power unit (blower).

1.3.3 Back wash—the process of cleansing the filter media and/or elements by reverse flow.

1.3.4 Breakpoint chlorination—the destruction of chloramines by superchlorination. Chloramines are determined in the spa water as ‘combined chlorine’ which is the difference between ‘total chlorine’ and ‘free chlorine’.

1.3.5 Capacity—the volume of water the spa contains when measured from the appropriate waterline described in Clause 2.4.1.

1.3.6 Casual contact—contact of any body part occurring by chance or by normal use modes.

1.3.7 Cutting hazard—a sharp edge that would cut the skin upon chance contact or in normal use.

1.3.8 Floor—the bottom interior surface of the spa pool, including that part of the surface on a horizontal plane up to a maximum of 1:12 slope.

1.3.9 Inlets—those openings in the spa wall or floor through which water enters the pool.

1.3.10 Jet inlet fitting—a fitting which blends air and water creating a high velocity, turbulent stream of air-enriched water.

1.3.11 Ladder—an appliance consisting of two stiles† joined at regular intervals by cross-pieces called rungs‡, on which a person may rest or step in ascending or descending.

1.3.12 Lining—the material on the inner surface of the spa structure in contact with the water.

1.3.13 Outlets—those openings in the spa wall or floor through which water leaves the pool.

1.3.14 Surface skimming system—perimeter type overflows, surface skimmer weirs and surface water collection systems of various designs and manufacture.

1.3.15 Pinching hazard—any configuration of components that would pinch or entrap the fingers or toes of a child or adult.

1.3.16 Private spa—a spa that is used in connection with a single family residence and is available only to the family of the ‘householder’ and their private guests.

1.3.17 Puncture hazard—any surface or protrusion that would puncture skin under casual contact.

1.3.18 Niche steps—a series of vertically spaced cavities in the spa wall creating tread areas for step-holes.

1.3.19 Spa—a water-retaining structure with a capacity of not less than 680 L to which is associated the facility for heating the water contained in it and injecting air bubbles or jets of turbulent water.

1.3.20 Steps—a tread or series of treads extending down from the deck into the spa area.

* Published by Australian Gas Association.

† The terms ‘stile’, ‘side-rail’, ‘string’, and ‘stringer’, are used synonymously in industry. For the purpose of this standard, the term ‘stile’ is used throughout.

‡ The terms ‘rung’, ‘round’, ‘step’, or ‘tread’ are used synonymously in industry. For the purpose of this standard, the term ‘rung’ is used throughout.