

Australian Standard™

**Design and installation
of revolving doors**



S t a n d a r d s Australia

This Australian Standard was prepared by Committee BD-055, Automatic Revolving Door Assemblies. It was approved on behalf of the Council of Standards Australia on 27 October 2000 and published on 11 December 2000.

The following interests are represented on Committee BD-055:

Australian Auto-Door Industry Forum

Australian Specialist Contractors Association

Australian Shop and Office Fitting Industry Association

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia web site at www.standards.com.au and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at mail@standards.com.au, or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

Australian Standard™

**Design and installation
of revolving doors**

Originated as AS/NZS 4290:1995.
Revised and designated AS 4290—2000.

COPYRIGHT

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 07337 3691 2

PREFACE

This Standard was prepared by the Standards Australia Committee BD/55, Automatic Revolving Door Assemblies, following submissions from the industry concerned and regulatory authorities. It supersedes AS/NZS 4290:1995.

The primary objective of this Standard is to provide minimum performance requirements aimed at ensuring the safety of ingress and egress traffic under normal operating conditions and to maintain safety under certain abnormal and emergency situations.

The secondary, but not less important, objective is to set minimum quality levels for components, fabrication and installation so that the entire assembly will not only perform satisfactorily when initially installed but, with due maintenance, will continue to do so during the assembly's intended service life.

The Committee limited its considerations to the most frequently encountered situations and attention is drawn to Clause 1.2 in this regard.

In the preparation of this Standard, cognizance was taken of current building practices and technology. Reference was made to *American National Standard for revolving doors*, *CEN Standard for Automatic Door Systems* and *AS 4085 Automatic sliding door assemblies* and acknowledgment is hereby made of this source material.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE	4
1.2 NEW DESIGN AND INNOVATIONS	4
1.3 APPLICATION	4
1.4 REFERENCED DOCUMENTS	4
1.5 DEFINITIONS	5
SECTION 2 DOOR SETS	
2.1 MATERIALS	9
2.2 LOADS	9
2.3 PERMANENT FRAME AND SUPPORT SYSTEMS	10
2.4 DOORS AND DOOR HARDWARE	11
SECTION 3 DRIVE AND MECHANICAL SYSTEMS	
3.1 PERFORMANCE CHARACTERISTICS	14
3.2 INSTALLATION	15
SECTION 4 DETECTORS	
4.1 DETECTOR FUNCTIONS	16
4.2 DETECTOR REQUIREMENTS	16
SECTION 5 CONTROL SYSTEMS	
5.1 GENERAL	19
5.2 CONTROL FUNCTIONS (AUTOMATIC DOORS ONLY)	19
SECTION 6 COMMISSIONING	
6.1 GENERAL	22
6.2 COMMISSIONING	22
APPENDICES	
A MEANS FOR DEMONSTRATING COMPLIANCE WITH THIS STANDARD	23
B RECOMMENDED REVOLVING DOOR INSPECTION AND MAINTENANCE PROCEDURES	25

STANDARDS AUSTRALIA

Australian Standard

Design and installation of revolving doors

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out functional requirements for revolving door assemblies. It also includes requirements for the operational safety and durability of assembled, installed and commissioned revolving doors.

NOTES:

- 1 Alternative means for demonstrating compliance with this Standard are given in Appendix A.
- 2 Appendix B describes recommended revolving door inspection and maintenance procedures.

1.2 NEW DESIGN AND INNOVATIONS

Any alternative materials, designs, methods of assembly, procedures, and the like that do not comply with specific requirements of this Standard, but that give equivalent results to those specified, are not necessarily precluded; however, equivalent performance may need to be demonstrated.

1.3 APPLICATION

This Standard applies to manual and power-operated revolving doors and revolving gates over 1000 mm high for pedestrian ingress and egress.

The Standard is not intended to apply to—

- (a) doors for vehicular ingress and egress;
- (b) vertical or horizontal opening door assemblies (roller shutters or sliding doors);
- (c) revolving gates and turnstiles below 1 m in height; and
- (d) fire-isolating doors, or smoke-resistant doors.

1.4 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1163	Structural steel hollow sections
1170	Minimum design loads on structures
1170.2	Part 2: Wind loads
1199	Sampling procedures and tables for inspection by attributes
1288	Glass in buildings—Selection and installation
1399	Guide to AS 1199—Sampling procedures and tables for inspection by attributes