

Australian Standard™

**Safety of machinery**

**Part 1703: Principles for determining  
the dimensions required for access  
openings**

**STANDARDS**  
Australia



This Australian Standard was prepared by Committee SF-041, General Principles for the Guarding of Machinery. It was approved on behalf of the Council of Standards Australia on 1 May 2006.  
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The following are represented on Committee SF-041:

Australian Chamber of Commerce and Industry  
Australian Electrical and Electronic Manufacturers Association  
Department for Administration and Information Services, SA  
Department of Consumer and Employment Protection, WorkSafe Division, WA  
Department of Primary Industries, Mine Safety, NSW  
Engineers Australia  
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Human Factors and Ergonomics Society of Australia  
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## PREFACE

This Standard was prepared by the Standards Australia Committee SF-041, as a revision, in part, of AS 4024.1—1996, *Safeguarding of Machinery, Part 1: General principles*.

During its work, the Committee considered a number of Standards originating within the European Community in the field of safety of machinery. Many of these European Standards are being adopted virtually unchanged as International Standards by the International Organization for Standardization (ISO) and the Committee has agreed to continue to use material emanating from both CEN and ISO in this new edition. This action will maintain consistency with previous editions of AS 4024.1 and other machine-specific Australian Standards.

This edition has been published as a series of Parts rather than the single Standard previously published as AS 4024.1. In doing this, the Committee has cleared the way for simple revisions in the future. When a new edition of a relevant Standard becomes available at the international level, it will be adopted and published within the framework of AS 4024 with a minimum delay, so ensuring continued international alignment.

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.

## CONTENTS

	<i>Page</i>
1 SCOPE.....	4
2 OBJECTIVE.....	4
3 REFERENCED DOCUMENTS.....	4
4 GENERAL REQUIREMENTS.....	5
5 ACCESS OPENINGS.....	5
APPENDICES	
A APPLICATION OF THE MEASUREMENTS IN PRACTICE.....	15
B POSITION OF ACCESS OPENINGS.....	19
C NOTATIONS FOR DIMENSIONS AND ANTHROPOMETRIC BODY MEASUREMENTS.....	28

## STANDARDS AUSTRALIA

### Australian Standard Safety of machinery

#### Part 1703: Principles for determining the dimensions required for access openings

## 1 SCOPE

This Standard specifies the dimensions of openings for access as applied to machinery, as defined in AS 4024.1201. It provides the dimensions to which the values given in AS 4024.1704 are applicable. Values for additional space requirements are given in Appendix A. This Standard has been prepared primarily for non-mobile machinery, there may be additional specific requirements for mobile machinery.

Dimensions for access openings are based on the values for the 95<sup>th</sup> percentile, whereas reach distances are based on the values for the 5<sup>th</sup> percentile, in each case the least favourable body dimension of the expected user population being used as a basis. The same considerations apply to the location of access openings.

The anthropometric data given in AS 4024.1704 originate from static measurements of nude persons and do not take into account body movements, clothing, equipment, machinery operating conditions or environmental conditions.

This Standard shows how to combine the anthropometric data with suitable allowances to take these factors into account.

Situations where people are to be prevented from reaching a hazard are dealt with in AS 4024.1801.

## 2 OBJECTIVE

The objective of this Standard is to enable designers, manufacturers, suppliers, employers and users of machinery to minimize risks to the health and safety of employees and others working with or otherwise near machinery by providing principles for determining the dimensions required for access openings to machinery.

## 3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard.

AS	
4024	Safety of machinery
4024.1201	Part 1201: General principles—Basic terminology and methodology
4024.1701	Part 1701: Human body measurements—Basic human body measurements for technological design
4024.1704	Part 1704: Human body measurements—Anthropometric data
4024.1801	Part 1801: Safety distances and safety gaps—Safety distances to prevent danger zones being reached by the upper limbs