

Australian Standard™

Safety of machinery

**Part 1704: Human body
measurements—Anthropometric data**

STANDARDS
Australia



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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
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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 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.

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STANDARDS AUSTRALIA

Australian Standard Safety of machinery

Part 1704: Human body measurements—Anthropometric data

1 SCOPE

This Australian Standard specifies current requirements for human body measurements (anthropometric data) that are required by AS 4024.1702 and AS 4024.1703 for the calculation of access opening dimensions as applied to machinery.

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

The data are based on information from anthropometric surveys representative of population groups within Europe comprising at least three million people. Both men and women are taken into account.

Measurements are given, as required by AS 4024.1702 and AS 4024.1703 for the 5th, 95th and 99th percentiles of the relevant population group within Europe.

2 OBJECTIVE

The objective of this Standard is to enable designers, manufacturers, suppliers, employers and users of machinery to minimize the risks to the health and safety of those who must work with or otherwise near machinery by providing anthropometric data.

3 REFERENCED DOCUMENTS

The following documents are referenced in this Standard:

AS

4024 Safety of machinery

4024.1701 Part 1701: Basic human body measurements for technological design

4024.1702 Part 1702: Human body measurements—Principles for determining the dimensions required for opening for whole body access into machinery

4024.1703 Part 1703: Human body measurements—Principles for determining the dimensions required for access openings

4 GENERAL

Anthropometric measurements form the basis upon which minimum dimensions of access openings can be calculated. When machinery requires access openings, then the provisions of AS 4024.1702 and AS 4024.1703 shall be complied with.

Table 1 gives the human body measurements necessary to calculate the size of access openings taking account of the known range of body sizes within Europe.

The notation used in Tables 1 and 2 are common to AS 4024.1702 and AS 4024.1703. Appropriate values from Table 1 shall be substituted in the formulae in AS 4024.1702 and AS 4024.1703 to calculate the dimensions of particular access openings.