

Australian Standard™

**Safety of machinery**

**Part 1301: Risk assessment—Principles  
of risk assessment**



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 11 April 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  
Federal Chamber of Automotive Industries  
Human Factors and Ergonomics Society of Australia  
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## PREFACE

This Standard was prepared by the Standards Australia Committee SF-041, General Principles for the Guarding of Machinery, as 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 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.

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**STANDARDS AUSTRALIA****Australian Standard  
Safety of machinery****Part 1301: Risk assessment—Principles of risk assessment****1 SCOPE**

This Standard specifies general principles for the procedure known as risk assessment, by which the knowledge and experience of the design, use, incidents, accidents and harm related to machinery is brought together in order to assess the risks during all phases of the life of the machinery (see AS 4024.1201).

This Standard gives guidance on the information required to allow risk assessment to be carried out. Procedures are described for identifying hazards and estimating and evaluating risk. The intent of the Standard is to provide advice for decisions to be made on the safety of machinery and the type of documentation required to verify the risk assessment carried out.

This Standard is not intended to provide a detailed account of methods for analysing hazards and estimating risk, as this is dealt with elsewhere (e.g. textbooks and other reference documents).

NOTE: A summary of some of these methods is given in Appendix A.

**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 employees and others working with or otherwise near machinery, by providing them with the means to assess those risks.

**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
- 4024.1202 Part 1202: General principles—Technical principles

- 60204 Safety of machinery—Electrical equipment of machines
- 60204.1 Part 1: General requirements (IEC 60204-1, Ed.5 (FDIS) MOD)

**IEC**

- 60812 Analysis techniques for system reliability—Procedure for failure mode and effects analysis (FMEA)
- 61025 Fault tree analysis (FTA)

**4 DEFINITIONS**

For the purposes of this Standard, the definitions given in AS 4024.1201 and the following apply.