

Australian Standard™

Safety of machinery

**Part 1601: Design of controls,
interlocks and guarding—Guards—
General requirements for the design and
construction of fixed and movable
guards**

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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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
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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 dealing with the safety of machinery originating within the European Community. Many of these European Standards are now 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, to maintain consistency with previous editions of AS 4024, and other, machine-specific Australian Standards currently under development.

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

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

CONTENTS

	<i>Page</i>
1 SCOPE	4
2 OBJECTIVE.....	4
3 REFERENCED DOCUMENTS	4
4 DEFINITIONS	5
5 RISK ASSESSMENT	10
6 PRINCIPAL REQUIREMENTS FOR THE DESIGN AND CONSTRUCTION OF GUARDS.....	15
7 SELECTION OF TYPES OF GUARDS.....	16
8 ADDITIONAL DESIGN AND CONSTRUCTION CONSIDERATIONS	19
9 VERIFICATION OF THE SAFETY REQUIREMENTS FOR GUARDS	20
10 INFORMATION FOR USE.....	21
APPENDICES	
A SELECTION OF GUARDS AGAINST HAZARDS GENERATED BY MOVING PARTS.....	23
B SELECTION OF GUARDS ACCORDING TO THE NUMBER AND LOCATION OF HAZARDS	24

STANDARDS AUSTRALIA

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Part 1601: Design of controls, interlocks and guarding—Guards—General requirements for the design and construction of fixed and movable guards

1 SCOPE

This Standard specifies general requirements for the design and construction of guards, both fixed and moving provided primarily to protect persons from mechanical hazards associated with machinery.

Attention is drawn to the use of guards to minimize exposure to non-mechanical hazards.

The requirements of this Standard are applicable if fixed and movable guards are used. The Standard does not cover those parts of guards which actuate interlocking devices. These are covered in AS 4024.1602.

This Standard does not provide requirements for special systems relating specifically to mobility or to the ability to lift loads such as rollover protective structures (ROPS) and falling-object protective structures (FOPS).

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 those working with or otherwise near machinery by providing technical means for the design and construction of guards.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

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| 4024 | Safety of machinery |
| 4024.1101 | Part 1101: Terminology—Terms and definitions |
| 4024.1201 | Part 1201: General principles—Basic terminology and methodology |
| 4024.1202 | Part 1202: General principles—Technical principles |
| 4024.1301 | Part 1301: Risk assessment—Principles for risk assessment |
| 4024.1302 | Part 1302: Risk assessment—Reduction of risks to health and safety from hazardous substances emitted by machinery—Principles and specification for machinery manufacturers |
| 4024.1602 | Part 1602: Design of controls, interlocks and guarding—Interlocking devices associated with guards—Principles for design and selection |
| 4024.1801 | Part 1801: Safety distances and safety gaps—Safety distances to prevent danger zones being reached by upper limits |
| 4024.1802 | Part 1802: Safety distances and safety gaps—Safety distances to prevent danger zones being reached by the lower limits |
| 4024.1803 | Part 1803: Safety distances and safety gaps—Minimum gaps to avoid crushing of parts of the human body |
| 60204 | Safety of machinery—Electrical equipment of machines |
| 60204.1 | Part 1: General requirements (IEC 60204-1, Ed.5 (FDIS), MOD) |