AS/NZS 4024.1601:2014
EN 953:1997+A1:2009

Australian/New Zealand 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

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The following are represented on Committee SF-041:

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Australian/New Zealand 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

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee SF-041, General Principles for the Guarding of Machinery, to supersede AS 4024.1601—2006.

It is emphasized that this Standard is part of the AS(/NZS) 4024.1 series and it is imperative that it is used in conjunction with other applicable parts of the series. A complete listing of all current parts of the AS(/NZS) 4024.1 series can be found at the Standards Australia website <www.standards.org.au> and in AS/NZS 4024.1100, *Safety of machinery*, Part 1100: *Application Guide*.

The objective of this Standard is to specify general requirements for the design and construction of guards provided primarily to protect persons from mechanical hazards. Attention is drawn to the use of guards to minimize exposure to non-mechanical hazards. The requirements are applicable if fixed and moveable guards are used.

This Standard does not cover those parts of guards which actuate interlocking devices. These are covered in AS/NZS 4024.1602. This Standard does not provide requirements for special systems relating specifically to mobility or the ability to lift loads like rollover protective structures (ROPS) and falling-object protective structures (FOPS).

This Standard is identical with, and has been reproduced from EN 953:1997, *Safety of machinery—Guards—General requirements for the design and construction of fixed and movable guards*, and its Amendment 1 (2009). The start and finish of text introduced or altered by amendment is indicated in the text by tags [A1⟩ ⟨A1].

As this Standard is reproduced from an International Standard, the following applies:

(a) In the source text 'this European Standard' should read 'this Australian/New Zealand Standard'.

(b) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian/New Zealand Standard*	
EN		AS/NZS	
		4024	Safety of machinery
349	Safety of machinery—Minimum gaps to avoid crushing of parts of the human body	4024.1803	Part 1803: Safety distances and safety gaps—Minimum gaps to prevent crushing of parts of the human body
626	Safety of machinery—Reduction of risks to health from hazardous substances emitted by machinery		
626-1	Part 1: Principles and specifications for machinery manufacturers	4024.1302	Part 1302: Risk assessment—Reduction of risks to health from hazardous substances emitted by machinery—Principles and specifications for machinery manufacturers
1088	Safety of machinery—Interlocking devices associated with guards—Principles for design and selection	4024.1602	Part 1602: Interlocking devices associated with guards—Principles for design and selection
		AS	
60204	Safety of machinery—Electrical equipment of machines	60204	Safety of machinery—Electrical equipment of machines
60204-1	Part 1: General requirements (IEC 60204-1:2005, modified)	60204.1	Electrical equipment of machines—General requirements (IEC 60204-1, Ed. 5 (FDIS) MOD)

EN ISO		AS/NZS	
12100	Safety of machinery—Basic concepts, general principles for design		
12100-1	Part 1: Basic terminology, methodology (ISO 12100-2:2003)	4024.1201	Part 1201: General principles for design—Risk assessment and risk reduction
12100-2	Part 2: Technical principles (ISO 12100-2:2003)	4024.1201	Part 1201: General principles for design—Risk assessment and risk reduction
13857	Safety of machinery—Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)	4024.1801	Part 1801: Safety distances to prevent danger zones being reached by upper and lower limbs
14121	Safety of machinery—Risk assessment	4024	Safety of machinery
14121-1	Part 1: Principles (ISO 14121-1:2007)	4024.1201	Part 1201: General principles for design—Risk assessment and risk reduction

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex to which they apply. A ‘normative’ annex is an integral part of a Standard, whereas an ‘informative’ annex is only for information and guidance.