AS 4024.1604—2006

Australian Standard™

Safety of machinery

Part 1604: Design of controls, interlocks and guarding—Emergency stop—Principles for design

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 18 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
Institution of Instrumentation, Control and Automation Australia
National Electrical and Communications Association
National Safety Council of Australia
Office of the Australian Safety and Compensation Council
Safety Institute of Australia
The University of Melbourne
Tractor and Machinery Association of Australia
Victorian WorkCover Authority

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PREFACE

This Standard was prepared by the Standards Australia Committee SF-041, General Principles for the Guarding of Machinery, to supersede (in part) 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

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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1 SCOPE

This Standard specfies functional requirements and design principles for the emergency stop of machinery, independent of the type of energy used to control the function.

The requirements of this Standard apply to all machinery except the following:

(a) Machines in which the provision of emergency stop would not lessen the risk.

(b) Hand-held portable machines.

(c) Hand-guided machines.

This Standard does not deal with functions such as reversal or limitation of motion, deflection, shielding, braking, or disconnecting, which may be part of the emergency stop function.

2 OBJECTIVE

The objective of this Standard is to enable designers, manufacturers suppliers, employers and users of machinery to minimize risk to the health and safety of employees and others working with or otherwise near machinery by providing principles for the design of emergency stop equipment for use on machinery.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
4024	Safety of machinery
4024.1202	Part 1202: General principles—Technical principles
4024.1301	Part 1301: Risk assessment—Principles of risk assessment
4024.1501	Part 1501: Design of safety related parts of control systems—General principles for design
60204	Safety of machinery—Electrical equipment of machines
60204.1	Part 1: General requirements (IEC 60204-1, ed 5 (FDIS) MOD)
60947	Low-voltage switchgear and control gear
60947.5.1	Part 5.1: Control circuit devices and switching elements—Electromechanical control circuit devices

4 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

4.1 Emergency stop (function)

Function which is intended—