AS/NZS 1891.4:2009

Australian/New Zealand Standard™

Industrial fall-arrest systems and devices

Part 4: Selection, use and maintenance

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee SF-015, Industrial Height Safety Equipment. It was approved on behalf of the Council of Standards Australia on 28 September 2009 and on behalf of the Council of Standards New Zealand on 16 October 2009.
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The following are represented on Committee SF-015:

Australian Chamber of Commerce and Industry
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Australian Lightweight Vertical Rescue Instructors
Australian Mobile Telecommunications Association
Business New Zealand
Certification Interests (Australia)
Communications, Electrical and Plumbing Union
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Part 4: Selection, use and maintenance

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee SF-015, Industrial Height Safety Equipment (formerly Industrial Safety Belts and Harnesses), to supersede AS/NZS 1891.4:2000. It is one of five Standards in the series *Industrial fall-arrest systems and devices*. The series comprises the following Standards:

AS/NZS	
1891	Industrial fall-arrest systems and devices
1891.1	Part 1: Harness and ancillary equipment
1891.2	Part 2: Horizontal lifeline and rail systems
1891.2 Supp1	Supplement 1: Horizontal lifeline and rail systems—Prescribed configurations for horizontal lifelines
1891.3	Part 3: Fall-arrest devices
1891.4	Part 4: Selection, use and maintenance (this Standard)

This edition has been prepared with the specific intention of aligning it with the recently published edition of AS/NZS 1891.1.

Principal changes from the previous edition are as follows:

(a) Removal of ‘total restraint’ from the scope of the Standard as equipment provided solely for restraint purposes is not dealt with in the AS/NZS 1891 series of Standards. This Standard recognizes only ‘restraint technique’ which allows for the possibility of a fall and requires the use of fall-arrest rated equipment and anchorages. For clarification purposes a description of ‘total restraint’ is given in Appendix F.

(b) Minimum allowable anchorage strength to be 12 kN or 15 kN depending on fall distance.

(c) New terminology for harnesses (full or lower body) and positioning of fall-arrest attachment points.

(d) Inclusion of twin-tail lanyards.

(e) In-service values for the extension of personal energy absorbers in fall situations.

(f) Lower body harness use restricted to limited free fall and restrained fall.

(g) Updated requirements for operator training and assessment.

(h) The term ‘suspension trauma’ has been changed to ‘suspension intolerance (trauma)’.

(i) A belt or waist strap alone in lieu of a harness is no longer permitted for any of the applications in this Standard to protect against a potential fall.

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.

Statements expressed in mandatory terms in footnotes to figures are deemed to be requirements of this Standard.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements and sets out recommendations for the selection, safe use and maintenance of industrial fall-arrest systems and devices based on the use of safety harnesses, horizontal life lines and rails, fall-arrest devices, and associated lanyards, connectors, anchorages and fittings, as follows:

(a) *Selection* Requirements and recommendations for determining the types of components of the system that would be appropriate to the envisaged usage.

(b) *Safe use* Requirements and recommendations relating to the safe practices to be followed in the use of components and assemblies.

(c) *Maintenance* Requirements and recommendations for inspection, storage, servicing and cleaning practices.

NOTE: This Standard provides guidance for the selection of equipment and safe use procedures for some but not necessarily all forms of height protection or all of the circumstances under which such equipment and procedures are used.

The selection and safe use of equipment used in total restraint or rope access is not covered by this Standard (see AS/NZS 4488.2 for selection and safe use of rope access equipment).

1.2 OBJECTIVE AND PRINCIPLES

The objective of this Standard is to provide users of fall-arrest systems and devices with requirements and recommendations relating to their selection, use and maintenance. (See also Clause 1.6, which indicates where fall-arrest systems are placed within the hierarchy of control of fall protection).

The principles on which these requirements and recommendations are based, are summarized as follows:

(a) Any person at risk of a potentially injury producing fall shall be secured by equipment that is rated for fall arrest.

(b) A person suffering a fall when secured by a fall-arrest system shall—

  (i) be subjected to an arresting force not exceeding 6 kN;

  (ii) be wearing equipment that distributes fall-arrest forces over the body in a way that will minimize the possibility of injury;

  (iii) be connected to a system which avoids the user reaching ground or striking any other obstacle that will cause injury, and maintains the user in a suitable post fall-arrest attitude for rescue purposes; and

  (iv) be wearing a harness with at least a front fall-arrest rated attachment point, which may assist in rescue and which is designed to avoid or reduce the likelihood of suspension intolerance (trauma).

  NOTE: This does not preclude the use of other permitted fall-arrest rated attachment points.