

Australian/New Zealand Standard™

Spray painting booths, designated spray painting areas and paint mixing rooms



AS/NZS 4114:2020

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-014, Electrical Equipment in Hazardous Areas to supersede AS/NZS 4114.1:2003, *Spray painting booths, designated spray painting areas and paint mixing rooms, Part 1: Design, construction and testing*, and AS/NZS 4114.2:2003, *Spray painting booths, designated spray painting areas and paint mixing rooms, Part 2: Installation and maintenance*.

The objective of this revision is to amalgamate the two parts of the 2003 standard to provide manufacturers, designers, users, statutory authorities and others with comprehensive requirements for the design, construction, installation, testing and maintenance of spray painting booths, spray painting areas and mixing rooms.

The terms “normative” and “informative” are used in Standards to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

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Section 1 Scope and general

1.1 Scope

This Standard specifies requirements for the design, construction, installation, maintenance and testing of spray painting booths and designated spray painting areas. This Standard also covers the requirements for paint mixing rooms in which flammable liquids are used. It also covers booths incorporating baking or heating cycles, using either direct or indirect heating systems.

The requirements contained in this Standard are provided as a means to demonstrate conformance to the requirements for electrical equipment specified in AS/NZS 3000, *Wiring Rules* and the relevant requirements of the AS/NZS 60079 series.

NOTE 1 Attention is drawn to other requirements that may be contained in respective legislation.

NOTE 2 AS/NZS 60079.14 does not require conformance to this Standard but accepts this Standard as a means of conformance. Spray booths that may be constructed and installed to other codes or Standards may be accepted where they can be shown to be conformant with the essential safety requirements of AS/NZS 3000 and the AS/NZS 60079 series.

This Standard applies to all types of paints including paints based on flammable liquids, water-based paints and water-soluble paints.

NOTE 3 Water-based or water-soluble paints may also contain organic solvents in the formulation of the paint.

This Standard does not apply to —

- (a) dry powder-type spray booths or operations, the requirements for which are detailed in AS 3754; or
- (b) ovens used for the sole purpose of drying or baking.

This Standard does not address issues associated with:

- (i) Toxicity of the products or vapours resulting from the activities. Additional precautions may be required in this case. Where ventilation is used as a control measure for toxic aspects of the hazard, the ventilation arrangement will normally exceed the requirements for controlling any background concentration that may be considered for hazardous areas.
- (ii) Water quality and associated health aspects such as legionnaires disease (e.g. for screens and water filters).
- (iii) Waste water and disposal of contaminated waste products (e.g. from wash down of spray areas).

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

AS 1319, *Safety signs for the occupational environment*

AS 1375, *Industrial fuel-fired appliances (known as the SAA Industrial Fuel-fired Appliances Code)*

AS 1482, *Electrical equipment for explosive atmospheres – Protection by ventilation – Type of protection v*

AS 3814, *Industrial and commercial gas-fired appliances*