

Standards Australia Handbook

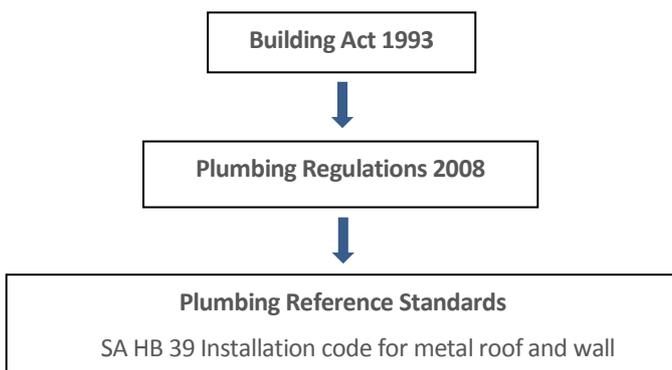
Installation code for metal roof and wall cladding

UPDATED SA HB 39 - 2015

What is the scope of this Handbook?

The purpose of **SA HB 39 - 2015** is to provide basic guidelines and good practice methods for the selection, performance and installation of metal roofing.

Victorian Plumbing Regulatory Framework



Where is SA HB 39 called up?

The Victorian *Plumbing Regulations 2008*¹ call up **SA HB 39 – 2015** in Schedule 2 *Part 5- Requirements for roofing (stormwater) work, Regulation 8 (a)*.

Plumbing Regulations 2008

S.R. No. 136/2008

Regulation 8 (a) requires that all roofing (stormwater) work must comply with:

- a) SAA HB 39—1997 Installation code for metal roof and wall cladding, published by Standards Australia, as issued, published or remade from time to time (except for Appendices B, C and D).

NOTE: Appendix D has been removed from **SA HB 30 - 2015**

Publication Date

15 July 2015 (replaces **SA HB 39 – 1997**)

Class of plumbing work affected

- Roofing (stormwater) work

Changes and Impact

Standards Australia has updated **SA HB 39 – 2015** to include new technology and remove inconsistencies with the **AS/NZS 3500** series.

NOTE: To avoid confusion over which Clause is discussed, the version of **SA HB 39** that each Clause is taken from is indicated in brackets: (1997) or (2015).

SA HB 39 is a mandatory document

Practitioners need to be aware that all of the requirements in **SA HB 39** are mandatory. Unlike Standards such as **AS/NZS 3500.1:2015** within which some clauses are advisory every provision in a Handbook called up by the Victorian Plumbing Regulations is compulsory.

¹ The Victorian Plumbing Regulations 2008 can be found on the VBA website:

<http://www.vba.vic.gov.au/practitioners/legislation>

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Section 2 Material Selection

The revised **SA HB 39** also includes information on the newly available aluminium/zinc/magnesium coating technologies. These coatings improve corrosion resistance and durability by the addition of magnesium, silicon and the addition of other control elements.

Tables 2.2.1 Minimum Thickness of Gutters (a), (b) & (c) (2015)

The enhanced durability of the steel coating does not change the minimum thickness requirements for box, eaves or valley gutters. Aluminum/zinc/magnesium coated steel must be installed to the same thickness as traditional aluminum/zinc alloy coated steel.

Tables 2.2.2 & Table 2.2.3 Minimum Thickness of Vertical Downpipes (2015)

As with the minimum thickness of gutters, the enhanced durability of aluminum/zinc/magnesium coatings does not change the minimum thickness requirements for downpipes. They must comply with the same thickness requirements as those for aluminum/zinc.

Section 3 Maintenance and Care

Clause 3.12 Sunscreen and Pre-painted Metal Sheets (2015)

This Clause has been added to emphasise the importance of practitioners taking sensible measures to protect themselves from sun damage, and to remind practitioners to wear appropriate gloves when handling pre-painted steel components.

It is also pointed out that certain sunscreens containing titanium dioxide and zinc oxide can accelerate degradation and therefore damage roofing paint systems.

Section 5 Roof Drainage

Clause 5.3.2 Gutter installation (2015)

This Clause has been expanded to remind practitioners of some of the specific gutter installation requirements and methodologies:

- (d) When using synthetic rubber expansion joints they must be installed at the gutter's "highest point". Gutters must be lapped under the joint by at least 50mm.
- (f) Practitioners are reminded that roofs must overhang gutters by at least 50 mm.
- (j) There must be no gaps between the gutter upstand and the roof covering.
- (l) Box gutters must be installed in a straight line with no change in direction.
- (n) Box gutters must be sealed at the entry to the rain head and at the sump.

Clause 5.3.3 Outlets (b) Gutter Discharge (2015)

The requirement that box gutters must discharge rain water downstream without any change in the direction is reinforced.

Clause 5.4 Valley Gutters (2015)

The requirements for valley gutters have been expanded and clarified:

- (b) Valley heads must be securely fastened and turned up to be watertight.
- (i) To ensure proper drainage valley gutters are not be installed on roofs with a slope of less than 1:4.5 (12.5°).
- (j) Valley gutters must have a "nominal" side angle of 1:3.4 (16.5°).
- (k) Valley gutters must be installed to ensure that the roof catchment area they service does not exceed 20 square metres.

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Clause 5.6 Eaves Gutters (2015)

- (j) Practitioners are reminded that sarking must overlap gutter upstands 25mm.
- (k) The requirement that the minimum size of the outlet “should be 50% of the effective area of the gutter” has been removed. Outlets must be calculated according to a new *Table 5.6 Eaves Gutters – Size of Vertical Downpipe* which has been copied from **AS/NZS 3500.3:2015**.

Clause 5.11.2 Average recurrence interval (ARI) (2015)

ARI provisions have been expanded to assist practitioners when calculating the required level of overflow for both internal and external gutters based on a 100 ARI event.

Section 7 Roof Sheeting and Wall Cladding

Clause 7.1.2 Insulated Roof Panels (2015)

A new Clause has been introduced that describes the properties of insulated roof panels. Typically these panels are composed of two metal sheets permanently bonded to a core of insulation. The thickness and facing materials vary between manufacturers.

Practitioners are to follow the manufacturer’s instructions when installing these panels as the methods and requirements can vary between brands and are sometime different from traditional roofing systems.

NOTE: Further information on insulated panels can be found in Appendix B.

Section 8 Roof Flashings and Cappings

Clause 8.4 Wall and Step Flashings (2015)

- (b) When installing sloped wall flashings they must include a weathering fold “fixed into a 25 mm deep saw cut”.
- (c) A new Clause has been included outlining the requirements for practitioners when utilising pressure flashings on smooth surfaced finished walls instead of cutting grooves:
 - The pressure flashings are “purpose-made machine folded” and include a “safety/stiffening fold”.
 - Practitioners use a sandwich seal “approximately 20mm wide” with “fixings not further spaced than 100 mm apart”.
 - A durable watertight seal is used that is fit for purpose and is protected from “excessive movement”.

Section 10 Suspended Ceilings

Clause 10.3 Suspended Ceilings (1997)

This Clause has been deleted. **SA HB 39 – 2015** no longer contains any information or requirements on suspended ceilings.

Appendix A: Some Typical Roof Span Information (1997)

This Appendix has been deleted. These requirements should be sourced from specific product manufacturers.

Appendix A: Atmospheric Conditions (2015)

In **SA HB 39:1997** this was numbered Appendix E, however the contents remain unchanged in the 2015 version.

Appendix B: Insulated Panels (2015)

This new Appendix provides practitioners with descriptions and guidance on the proper use, installation and repair of insulated panels. This Appendix should be read in

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conjunction with Section 7 Roof Sheeting and Wall Cladding.

NOTE: This Appendix is not a requirement.

Appendix B: Design Rainfall Intensities (1997), Appendix C: Sizing Eaves Gutters and Downpipes (1997) and Appendix D: Sizing Internal Box Gutters (1997)

These Appendices have been deleted. These requirements can now be found in the 2015 versions of the **AS/NZS 3500** series.

The VBA strongly encourages practitioners to consult the complete standard in order to ensure they comply with all Deemed-to-Satisfy requirements.

The full text of SA HB 39 - 2015 can be purchased at the SAI Global website:

<http://www.saiglobal.com/>