

BUILT-UP ROOFING

SECTION 8 - SHEET METAL FLASHINGS

8.1 GENERAL

- .1 Sheet metal flashings shall continuously cover the membrane flashing installed at horizontal to vertical roof junctions. Sheet metal flashings shall be installed as soon as practical to protect the membrane flashing from damage.
- .2 Sheet metal flashings shall be corrosion resistant. The metal finish is not warranted by ARCA Warranty Ltd. Protect the metal finish from damage during shipping and handling.

8.2 WEIGHTS AND THICKNESS

- .1 The weight and thickness limits shown in the following table shall be followed within the CSA tolerances designated for the metal type shown and does not include the metal finish. The minimum weight or thickness of the sheet metal flashing shown in the table must be increased to the next heavier dimension when the unfastened vertical length of the sheet metal exceeds 457 mm (18"), when measured from its main anchorage point.

Metal	MINIMUM			MAXIMUM		
	Gauge	Inches	mm	Gauge	Inches	mm
Aluminum	22	0.021	0.53	16	0.044	1.12
Copper	16 oz.			20 oz.		
Coated Steel	26	0.020-0.022	0.50-0.56	22	0.030-0.034	0.76-0.87
Stainless Steel	28	0.014	0.36	22	0.027	.69

8.3 FABRICATION

- .1 Exposed sheet metal edges shall be hemmed and shall not be left raw cut with the exception of field fabricated joints found at corners. The top edge of the base flashing need not be hemmed when covered by a cap flashing. Individual sheet metal flashing pieces shall not exceed 3000 mm (10 ft.) in length (Also see 8.5.3.5).
- .2 The ends of sheet metal flashings shall be joined by S-locks or standing seams. S-lock flashing ends shall be fabricated to permit an approximate 25 mm (1") insert, with a tolerance of ± 6 mm (1/4"), in addition to an allowance for the thermal movement of the sheet metal flashings.
- .3 Standing seams shall extend a minimum distance of 25 mm (1") above the flashing surface and shall incorporate a single lock fold.

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- .4 The horizontal seams at corners shall be joined with a double seam or a standing seam.
- .5 Vertical corner seams may be lapped and mitered when not joined with a standing seam.
- .6 No soldering or caulking of joints is necessary except where a watertight joint is required at miscellaneous sheet metal flashing joints and where horizontal flanges attach to vertical flashings.

8.4 WALL FLASHINGS

8.4.1 Base Flashings

- .1 A two (2) piece wall flashing shall cover non-granular surfaced flashing membranes, except where a one piece wall flashing is permitted for Warranty Certificate issuance. The sheet metal base flashing shall extend up the vertical substrate a minimum distance of 200 mm (8") above the primary membrane, cover the cant and extend horizontally approximately 25 mm (1") from the toe of the cant over the membrane protection.
- .2 Base flashings shall be mechanically fastened to solid backing at intervals not exceeding 1500 mm (5 ft.) centers, with approved fasteners placed approximately 175 mm (7") above the primary membrane.

8.4.2 Cap Flashings

- .1 The top of walls shall be covered with wood blocking capable of providing sufficient holding force to anchor nail and screw fasten cap flashings. Where membrane flashing does not cover the blocking, a water proofing membrane shall cover the blocking and extend down each side a minimum distance of 50 mm (2").
- .2 The cap flashings shall completely cover the wood blocking and shall incorporate a minimum 50 mm (2") wide vertical face, excluding the drip edge.
- .3 The vertical face of cap flashings shall overlap the wall finish and incorporate a drip edge to shed water.
- .4 Cap flashings shall be concealed fastened at one end with galvanized roofing nails placed in both the horizontal and vertical faces of the S-lock end joint.
- .5 The cap flashing shall be mechanically fastened to the blocking with wood screws placed at maximum 1500 mm (5 ft.) centres. Sheet metal hook strips, fastened to the wood blocking, may be substituted for the wood screws.

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8.4.3 Counter Flashings

- .1 For smooth surfaced walls, terminations, membrane flashing terminations shall be covered with a reglet or kick-out style counter flashing detail.
- .2 Counter flashings shall be fabricated with a drip along their lower edges to shed water. Counter flashings shall overlap base flashings by a minimum distance of 50 mm (2").
- .3 Counter flashings shall not exceed 100 mm (4") in width, excluding the drip.
- .4 For reglet style counter flashings, the wall reglet shall be straight, of uniform width ranging between 12.7 mm (1/2") and 19 mm (3/4") wide and not less than 19 mm (3/4") deep. The sheet metal counter flashing shall be mechanically fastened in the reglet at maximum 600 mm (2 ft.) centers and the exposed reglet opening continuously caulked.
- .5 Where use of a reglet is impractical, a kick-out style counter flashing may be used for smooth surfaced substrates. Kick-out style counter flashings shall be mechanically fastened to the wall at maximum 600 mm (2 ft.) centers. Fasteners shall be placed immediately below the kick-out. A continuous metal bar may be incorporated to ensure wall contact is maintained. The kick-out lip shall be continuously caulked with a compatible sealant tooled to shed water.

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8.5 ROOF EDGE FLASHINGS

8.5.1 General

- .1 A metal flashing is required to finish, shed water and protect the membrane flashing at roof edges.
- .2 The roof edge may be finished with a cant edge detail or a parapet flashing.
- .3 Exposed fasteners are not permitted in the cant area or on the horizontal/top flashing surfaces.
- .4 A gravel stop flashing detail is not accepted for finishing built-up roofing edges.

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8.5.2 Cant Edge Flashing

- .1 For cant edge details, a sheet metal flashing shall be fabricated to cover the membrane flashing installed over the cant and extend horizontally approximately 25 mm (1") over the primary membrane, measured from the toe of the cant. The exterior vertical cant flashing face shall overlap the completed wall finish and contain a drip edge.

- .2 Cant edge flashings shall be joined by S-lock end joints and concealed fastened to the exterior and cant faces of the wood cant strip with galvanized roofing nails placed in flashing's end joint flanges.

8.5.3 Parapet Flashing

- .1 Parapets shall be covered with a two (2) piece metal flashing comprised of a separate base and cap flashing. Where the parapet is less than 300 mm (12") in height, the base and cap may be incorporated into a one piece flashing.
- .2 Where parapet cap flashings are required, the top of the parapet shall be covered with wood blocking capable of providing sufficient holding force to anchor nail or screw fasteners.
- .3 Parapet cap flashings shall be fabricated to completely cover the membrane flashing over the blocking and incorporate a minimum vertical face dimension of 50 mm (2"), excluding the drip edge. The exterior vertical flashing face shall overlap the completed wall finish. Parapet cap flashings shall overlap base flashings by a minimum distance of 50 mm (2").
- .4 Parapet flashings shall be concealed fastened at one end using galvanized roofing nails placed in both the horizontal and vertical faces of the S-lock end joint. Additionally, the exterior cap flashing face shall be mechanically fastened to the blocking with wood screws placed at intervals not exceeding 1500 mm (5 ft.) centers. Sheet metal hook strips, fastened to the blocking, may be substituted for the wood screws.
- .5 When the parapet width (girth) exceeds 400 mm (16"), the maximum length of cap flashing piece shall be 1500 mm (5 ft.).

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8.6 CONTROL JOINT FLASHINGS

- .1 Roof control joints, either roof area dividers or expansion joints shall be covered by a two (2) piece metal flashing comprised of a base and cap flashing.
- .2 Where control joints are less than 300 mm (12") in height, the base and cap flashing may be incorporated into a one piece flashing.

8.7 SCUPPER DRAINS

- .1 Sheet metal scupper drains shall be sized to extend beyond the exterior wall finish and to provide for a minimum 100 mm (4") wide base, cant and wall flange formed at the interior face of the scupper drain opening.
- .2 Through wall type scuppers must be four (4) sided with the upper scupper opening surface covered with sheet metal.

- .3 Where control of drainage is required, the scupper assembly may include an exterior hopper and an attached down pipe.

8.8 MISCELLANEOUS SHEET METAL FLASHINGS

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- .1 Miscellaneous sheet metal flashings such as roof jacks, gum boxes, ventilators, goosenecks and scupper penetrations shall be watertight, incorporate a continuous one piece deck flange, with no open corners, using a double seam or approved lock to secure the deck flange to the vertical flashing body.
- .2 Deck flanges shall not be fabricated less than 100 mm (4") nor more than 200 mm (8") in width.
- .3 Watertight sheet metal flashing joints shall be soldered or welded.
- .4 Watertight aluminum flashing joints must be welded.
- .5 When approved, specialty flashings may be substituted for fabricated sheet metal flashings.