3.7 Drains And Scuppers

3.7.1 Roof Drain With Clamping Ring

- **Applicability**
  Roof drains with clamping ring are designed for vertical drainage of new roofs.

- **Installation Instructions**
  When re-roofing, existing flashing materials must be removed down to the metal sump. Broken clamping rings must be repaired or replaced. Broken drain bolts must be drilled, tapped and replaced. Provide a clean even finish on the mating surfaces between the clamping ring and the drain bowl.

  Taper insulation around the drain to provide a smooth transition from the roof surface to the drain. Use tapered insulation with suitable bonding surface to create a slope. The slope shall not exceed 1:3 with standard membrane and 1:12 with reinforced membrane. If a field seam runs within 450 mm of a drain, a 1.2 m by 1.2 m EPDM target cover piece should be installed on top of the roof EPDM membrane, ensuring the seam is covered. Trim the field sheet back to the outside edge of the drain bowl so that only one layer of EPDM is under the clamping ring.

  Position the EPDM membrane, then cut a hole for the roof drain. Cut a circular drainpipe, but allow 20 mm of membrane extending inside the clamping ring past the drain bolts. Make sure the cut does not have edges that could tear over the life of the roof.
Make round clean holes in the EPDM membrane to align with clamping bolts. Use a paper punch or a hammer. Do not cut the membrane back to the boltholes. Place Water Block on top of the drain bowl below the membrane where the clamping ring will sit. Use a minimum of one half tube per drain.

![Fig. 3.7.3](image)

Place the clamping ring over the EPDM membrane and install the clamping bolts. Tighten the clamping bolts to achieve a constant compression. Install the drain basket and twist-lock if the drain has a twistlock system.

![Fig. 3.7.4](image)
3.7.2 Roof Drain Insert

- **Applicability**
  Drain inserts are typically used on drains with little or no sump and for re-roofing applications.

- **Installation Instructions**
  Remove the existing drain inserts on re-roofing projects or clean the existing ones for re-use.
  The field sheet must be in place prior to installation of the drain insert. Cut a circular hole over the centre of the drain. The hole should be as large as the drainpipe.

  Install the drain insert in the hole. Apply a layer of Water Block sealant between the flange of the drain insert piece and the EPDM membrane around the drainpipe. Use a minimum of one half tube per drain. The flange of soft drain insert pieces (EPDM ...) must be fastened with Firestone batten strips and fasteners 100 mm on centre. Hard drain insert flanges may be fastened using plates and fasteners.

  Apply QuickPrime Plus to the designated area. The flange is flashed-in with QuickSeam FormFlash strips or a piece of QuickSeam 5A Flashing extending 75 mm onto the field membrane and 75 mm past the fasteners in all directions.
Roll the QuickSeam FormFlash/SA Flashing cover pieces with a 50 mm silicone rubber roller and seal all exposed cut edges.

3.7 Scupper

3.7.3 Applicability

Scuppers are used for roofs with a horizontal drainage system in vertical walls.

3.7.4 Installation Instructions

The scupper insert piece usually consists of a welded metal sleeve. The entire interior of the flange needs to be flashed if the scupper insert is not welded watertight. All corners of the flanges need to be rounded. Remove existing scuppers and provide new watertight ones on re-roofing projects or clean the existing scupper for re-use. The field sheet must be in place prior to installation of the scupper insert.

Set the welded scupper piece in Water Block sealant and secure it to the structure. Measure the QuickSeam FormFlash strips to cover the visible flanges of the scupper insert. Overlap all edges of the metal flanges a minimum of 75 mm and fastener heads a minimum 75 mm. When necessary, clean the splicing area on the base membrane, wall flashing and metal flanges using Splice Wash. Pay extra attention on cleaning the metal because most metal sleeves have an oily film protection.

Apply QuickPrime Plus in the splicing area and allow to flash off completely. Once the QuickPrime Plus is ready, carefully install the QuickSeam FormFlash ensuring all lap splice requirements are being met. Roll the QuickSeam FormFlash flashing while it is still covered with the protective film in place. Remove the protective film and seal all exposed cut edges with Lap Sealant.