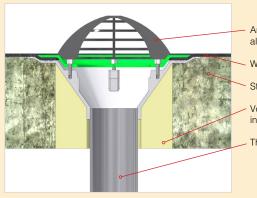
# **IMPORTANT:**

# COMMON INSTALLATION TASKS APPLICABLE TO ALL INSTALLATIONS

- Fit threaded pipe connector into the outlet body as per the label attached to each threaded pipe connector, using silicone sealant (SC101).
- Fill any structural voids to the underside of the outlet with mortar or insulation as appropriate.
- · Fit a fire collar or wrap around the protruding plastic pipe against the underside of the roof structure, if the pipe projects into a building

# COLD ROOFS AND CAR PARKS



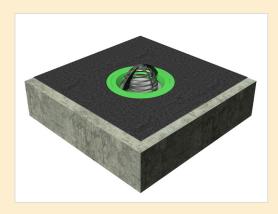
Anti-vortex grate - Flat grate also available

Waterproof membrane

Structured deck

Void filled with mortar or insulation

Threaded pipe connector



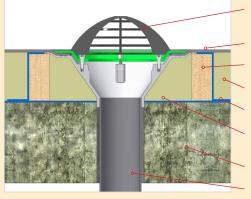
### GRP, Cold Liquid, Hotmelt or Asphalt Waterproofing Membranes

- Remove the membrane clamp ring, wax paper ring including butyl seals & three foam transit spacers located within the throat of the outlet and discard.
- Place roof outlet body (with pipe connector fitted) centrally over structural opening.
- Dress/apply waterproofing membrane over the recessed grooves of the outlet body.
- 4. Place membrane clamping ring over waterproofing membrane, then secure to outlet body with the 4 Nr male/female insert bolts. (Use the 4 threaded rods and belts supplied for asphalt applications) Tighten bolts in a diagonal sequence to ensure even compression. Check tightness after 15-30 mins and further tighten if required.
- 5. Attach grating.

### **Sheet Waterproofing Membranes**

- Remove the dome/flat grate, membrane clamp ring & wax paper ring from the butyl seal rings, including three foam transit spacers located within the throat of the roof outlet.
- Place roof outlet body with pipe connector fitted, centrally over structural opening.
- Cut a 500mm square piece of the waterproofing membrane with a 220mm diameter hole in the centre and place centrally over roof outlet.
- 4. Place membrane clamping ring over waterproofing membrane, then secure to outlet body with 4 Nr male/female insert bolts. Tighten bolts in a diagonal sequence to ensure even compression. Check tightness after 15-30 mins and further tighten if required.
- Attach grating.

## WARM ROOFS



Anti-vortex grate - Flat grate also available

Waterproof membrane

Timber hard edge

Rigid insulation

Vapour control layer

Void filled with rigid insulation/ PU foam

Structural deck

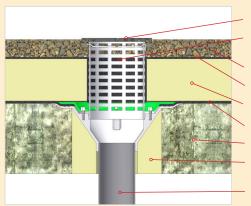
Threaded pipe connector

### **Sheet Waterproofing Membranes**

- The vapour control layer should be cut and sealed around the downpipe hole, within the deck, in accordance with the manufacturer's instructions.
- Create a 340x340mm internal dimension timber or other suitable material kerb around the roof outlet structural opening to the same height as the insulation.
- 3. Flashing pieces of the vapour control layer should be dressed over the timber kerb and sealed to the main vapour control layer.
- Place roof outlet onto the raised kerb, mark and recess the four contact areas so the top of the roof outlet and insulation are at the same height, then secure with 4 Nr A2 stainless steel screws (not supplied).
- Cut rigid sections of insulation to infill the corners of the timber kerb.

- Cut a 500mm square piece of the waterproofing membrane with a 220mm diameter hole centrally.
- Remove the dome/flat grate, membrane clamp ring & wax paper ring from the butyl seal rings, including three foam transit spacers located within the throat of the roof outlet.
- Place the 500mm square piece of waterproofing membrane over the outlet body ensuring the 220mmØ hole is central.
- Place the membrane clamping ring over the waterproofing membrane, then secure to outlet body with 4 Nr male/female insert bolts. Tighten bolts in a diagonal sequence to ensure even compression. Check tightness after 15-30 mins and further tighten if required.
- 10. Attach grating.

## INVERTED BALLAST ROOF



200 x 200mm grate

Extension ring (site cut for height adjustment)

Ballast

Water reducing layer

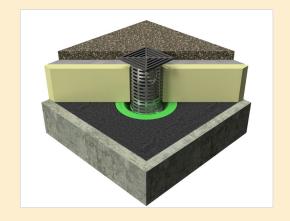
Rigid insulation

Waterproof membrane

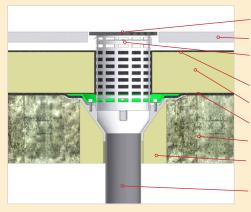
Structural deck

Void filled with mortar or insulation

Threaded pipe connector



# INVERTED PAVED ROOF (TERRACE)



200 x 200mm grate

Pavers on adjustable supports

Extension ring (site cut for height adjustment)

Water reducing layer

Rigid insulation

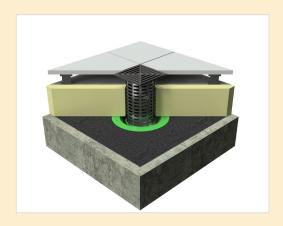
Waterproof membrane

Structural deck

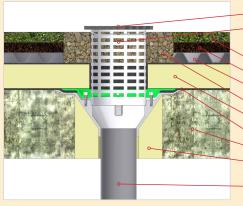
Void filled with mortar or

insulation

Threaded pipe connector



# **GREEN ROOF**



- 200 x 200mm grate

Extension ring (site cut for height adjustment)

Vegetation

Growing medium with filter

Drainage layer

Water reducing layer

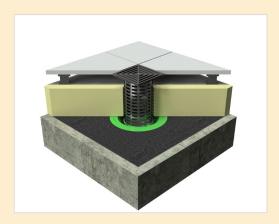
Rigid insulation

Waterproof membrane

Structural deck

Void filled with mortar or insulation

Threaded pipe connector



## GRP, Cold Liquid and Hotmelt Waterproofing Membranes

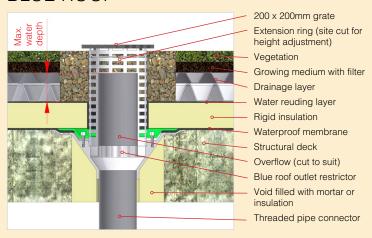
- Remove the membrane clamp ring, wax paper ring including butyl seals & three foam transit spacers located within the throat of the balcony outlet and discard.
- Place roof outlet body with pipe connector fitted centrally over structural opening
- Dress/apply waterproofing membrane over the recessed grooves of the outlet body.
- 4. Place membrane clamping ring over waterproofing membrane, then secure to outlet body with the 4 Nr male/female insert bolts. Tighten bolts in a diagonal sequence to ensure even compression. Check tightness after 15-30 mins and further tighten if required.
- Insert the 160mmØ perforated extension into outlet throat. Place PIR insulation around the perforated extension. Cut the 160mmØ perforated extension to the required height (level with the finish top layer).
- 6. Remove perforated extension ring and dress the water runoff layer into the insulation void, then re-insert the perforated extension ring.
- Insert the grate retaining bar through the uppermost perforations so that the threaded fixing hole is central. Place the 200 x200mm square grating into position and secure with screw provided.
- 8. Apply any further roof build-up components and dress around the outlet extension ring.

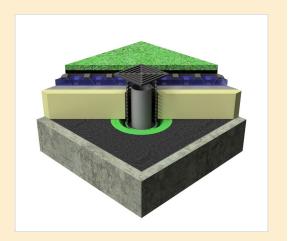
#### **Sheet Waterproofing Membranes**

- Remove the membrane clamp ring. Remove the wax paper ring from the butyl seal rings including three foam transit spacers located within the throat of the roof outlet, and discard.
- Place roof outlet body with pipe connector fitted centrally over structural opening.
- 3. Cut a 500mm square piece of the waterproofing membrane with a 220mm diameter hole in the centre and place centrally over roof outlet.
- 4. Place membrane clamping ring over waterproofing membrane, then secure to outlet body with 4 Nr male/female insert bolts. Tighten bolts in a diagonal sequence to ensure even compression. Check tightness after 15-30 mins and further tighten if required.
- 5. Insert the 160mmØ perforated extension into outlet throat. Place PIR insulation around the perforated extension. Cut the 160mmØ perforated extension to the required height (level with the finished top layer).
- Remove perforated extension ring and dress the water runoff layer into the insulation void, then re-insert the perforated extension ring.
- Insert the grate retaining bar through the uppermost perforations so that the threaded fixing hole is central. Place the square grating into position and secure with screw provided.
- Apply any further roof build-up components and dress around the outlet extension ring.

# **Outlets Typical Applications**

# **BLUE ROOF**





### GRP, Cold Liquid, Hotmelt Waterproofing Membranes

- Remove the membrane clamp ring, wax paper ring including butyl seals & three foam transit spacers located within the throat of the outlet and discard.
- Place roof outlet body with pipe connector fitted centrally over structural opening
- Dress/apply waterproofing membrane over the recessed grooves of the outlet body.
- 4. Place membrane clamping ring over waterproofing membrane, then secure to outlet body with the 4 Nr male/female insert bolts. Tighten bolts in a diagonal sequence to ensure even compression. Check tightness after 15-30 mins and further tighten if required.
- Insert the 160mmØ perforated extension into outlet throat. Place PIR insulation around the perforated extension. Cut the 160mmØ perforated extension to the required height.
- Remove perforated extension ring and dress the water runoff layer into the insulation void, then re-insert the perforated extension ring.
- Place Blue Roof restrictor/overflow flange into the throat of the outlet body. Establish the maximum allowable water depth, mark and cut the overflow upstand to correspond accordingly.
- 8. Place and bed the flange of the Blue Roof restrictor onto an 8mm bead of silicone into the throat of the roof outlet.
- Remove correct number of restrictor sealing plugs as instructed within the Blue Roof drainage design.
- Re-insert the perforated extension ring. Insert grate retaining plate and fix square grating into position with screw provided.
- Apply any further roof build-up components and dress around the outlet extension ring.

#### **Sheet Waterproofing Membranes**

- Remove the membrane clamp ring. Remove the wax paper ring from the butyl seal rings including three foam transit spacers located within the throat of the roof outlet, and discard.
- Place roof outlet body with pipe connector fitted centrally over structural opening.
- Cut a 500mm square piece of the waterproofing membrane with a 220mm diameter hole in the centre and place centrally over roof outlet
- 4. Place membrane clamping ring over waterproofing membrane, then secure to outlet body with 4 Nr male/female insert bolts. Tighten bolts in a diagonal sequence to ensure even compression. Check tightness after 15-30 mins and further tighten if required.
- Insert the 160mm perforated extension into outlet throat. Place PIR insulation around the perforated extension. Cut the 160mm perforated extension to the required height.
- Remove the perforated extension ring and dress the water runoff layer into the insulation void.
- Place Blue Roof restrictor/overflow flange into the throat of the outlet body. Establish the maximum allowable water depth, mark and cut the overflow upstand to correspond accordingly.
- 8. Place and bed the flange of the Blue Roof restrictor onto an 8mm bead of silicone into the throat of the roof outlet.
- Remove correct number of restrictor sealing plugs as instructed within the Blue Roof drainage design.
- Re-insert the perforated extension ring. Insert grate retaining plate and fix square grating into position with screw provided.
- Apply any further roof build-up components and dress around the outlet extension ring.