

INSTALLATION PROCEDURES

Hot Asphalt

1. The roof construction should have an appropriate size hole. To give support to the sloping sides of the roof outlet, the roof screed should be dished. All roof outlets must be securely fixed to the roof structure.
2. Roof outlet is now placed in position, making sure that the spigot is truly vertical and then giving a sound push-fit connection into the rainwater pipe.
3. Remove grating and clamping ring. Hot asphalt is applied to the roof in layers. The first layer should be allowed to flow into the roof outlet.
4. The clamping ring is now secured by the brass wingnuts down onto the hot asphalt. Although the outlet flange will soften from the effect of the hot asphalt, there will be no distortion providing the correct support is given.
5. Finish the second asphalt coat to the outlet opening edge and cover with a dusting of fine sand.
6. Fix the grating in position with the bolts.

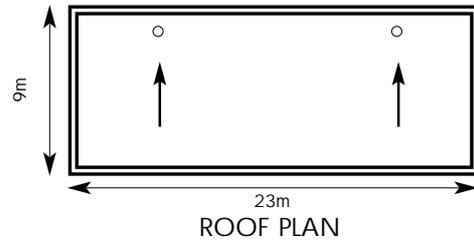
Bituminous Felt Roofing

1. The hole in the roof should be as in 1 above.
2. Set the flange on the roof outlet into a recess in the roofboarding to give a level finish.
3. When applying the liquid bitumen to the roof, allow it to cover the outlet flange and the sloping part of the outlet.
4. Then when bonding the felt onto the roof with the liquid bitumen, the felt should be taken over the outlet top flange.
5. Cut the part of the felt over the hole of the outlet.
6. Using a blow lamp form the felt down onto the sloping edge and retain with the clamping ring and wing nuts.
7. With the bolts, fit the grating into position.

PVC Roofing

1. The hole in the roof should be as in 1. above.
2. Apply recommended adhesive to flange and sloping part of the outlet.
3. Lay plastic material into flange and dress into outlet.
4. Retain with clamping ring.
5. fix grating into position with bolts.

Roof outlet and downpipe sizes for flat roofs. The following example illustrates the use of the drainage data table



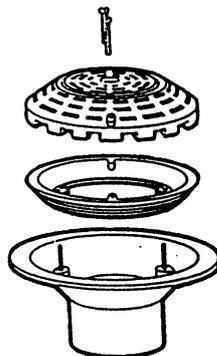
1. Determine outlet positions:
Underground drainage schemes will permit two downpipes to be used.
2. Determine design requirements:
Constructional factors require depth of water at edge of outlet to be limited to 19mm.
3. Calculate roof area: $23 \times 9 = 207$ sq. m.
4. Consult table and select outlet size appropriate to roof area and any limitations on depth of flow at edge of outlet: A single 110mm outlet would drain 230 sq. m. That is more than the whole of this roof area if a depth of flow at edge of outlet of up to 25m was acceptable and is satisfactory falls to the roof could be provided. However, with the depth of flow at edge of outlet limited to 19mm, two 82mm outlets will drain $2 \times 115 = 230$ sq. m. and will, therefore, drain this roof with a reasonable margin, assuming a rainfall intensity of 75mm per hour.
5. Downpipe size will be the same as nominal size of outlet: 82mm.
6. Further guidance on selecting an acceptable rainfall intensity can be found in the National Annex of BS EN 12056: 3: 2000.

Roof outlet

Securing bolts

Wing nuts

Bolts



Grating

Clamping ring

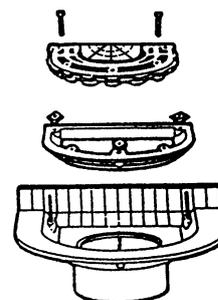
Outlet

Balcony outlet

Securing bolts

Wing nuts

Bolts



Flat grating

Clamping ring

Outlet