

BAUDER INSULATED RAINWATER OUTLETS

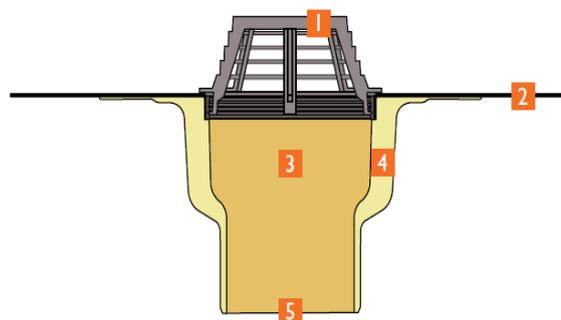
Introduction

Bauder Insulated Outlets offer a solution to the problem of maintaining thermal continuity at drainage points.

Ideal for warm, cold and inverted roof construction. The BRE Certified high thermal value of the rigid foam body prevents condensation from forming on the underside of the outlet body.

Designed for use when connecting to conventional gravity drainage systems, Bauder Insulated Outlets offer excellent flow rate performance. Our range incorporates products suitable for both new build and refurbishment roof situations.

When specified within Bauder waterproofing systems as an integrated component, these products are included within our Bauder System Guarantee.



1. Polyamide grille
2. Bituminous connection membrane
3. Integral sump bowl and spigot
4. Polyurethane rigid foam body
5. Spigot connection

KEY CHARACTERISTICS

- High insulation value of the outlet reduces heat loss – BRE Certified.
- UV/IR radiation resistant
- Shock and impact proof
- Robust and Durable
- Low noise drainage
- High drainage capacity
- Installation is fast, simple and very secure – utilising a thermally insulated housing unit.
- Allows plumbing connection at vapour barrier stage, thus providing initial weather proofing and drainage of the roof, whilst allowing internal work to commence.
- The design of the polyamide domical leaf grille ensures a free flow of water, whilst preventing leaves and debris from entering the drainage system.

One of the benefits of using a two part outlet is that the first section, the outlet bowl can be installed to the deck, allowing the vapour barrier to be installed and the internal pipework connected. This provides waterproof integrity and allows internal work to commence.

Once the insulation is installed, the extension unit housing and extension unit can be fitted.

A special sealing ring inserted into the outlet bowl ensures total waterproof integrity with the extension unit spigot.

The underlayer membrane is installed and torch welded onto the extension unit's integral SBS bitumen membrane connection flange, followed by the installation of the capping sheet, ensuring complete security.

Once the insulation is installed, the second section, the extension piece can be fitted through the extension unit housing (and packer if required), and then the waterproofing can be installed. This avoids the need for isolation detailing around the outlet and assists with overall 'air tightness'.

PRODUCTS & INFORMATION

Bauder Bitumen Compact Vertical Outlet DN 100



Supplied in 100mm (internal diameter) to suit 110mm internal pipework. These units have a good flow rate and will suit most deck types, but can also be used where the deck construction is shallower, due to the more compact bowl and shorter spigot. It should be used in conjunction with the extension unit and extension unit housing when specified within warm roof systems.

The outlet is supplied with a tough, but lightweight, polyamide domical leaf grille that permits free flow of water, whilst preventing leaf litter or other debris from entering the outlet. This push fit grille is easily removed to allow for maintenance. The domical leaf grille is supplied with the outlet and is used for the extension unit in warm roof constructions.

Bauder Bitumen Compact Extension Unit



The Bitumen Compact Extension Unit is available in spigot length 60mm-220mm to accommodate differing insulation thickness specified. These are always incorporated within warm roof system construction to maintain thermal integrity.

Bauder Compact Extension Unit Housing



High density PIR housing to ensure correct seating of the extension unit. Can be used in conjunction with Bauder flatboard insulation to create the correct sump depth or ensure the level position of the extension unit to the waterproofing system.

Bauder Bitumen Vertical Outlet DN 70 & 150



Available in both 70mm and 150mm (internal diameter) to suit 75mm and 160mm internal pipework respectively. These outlets have excellent flow rates and will suit most deck types, but are particularly suited for deeper deck constructions such as concrete (particularly within green roof systems), due to the deeper bowl and spigot length. The 70mm outlet can be used in conjunction with a Bauder Blue Roof. The outlet should be used in conjunction with the extension unit and extension unit housing when specified within warm roof systems.

The outlet is supplied with a tough, but lightweight, polyamide domical leaf grille that permits free flow of water, whilst preventing leaf litter or other debris from entering the outlet. This push fit grille is easily removed to allow for maintenance. The domical leaf grille is supplied with the outlet and is used for the extension unit in warm roof constructions.

Bauder Bitumen Extension Unit



The Extension Unit is available in spigot length 60mm-220mm to accommodate differing insulation thickness specified. These are always incorporated within warm roof system construction to maintain thermal integrity.

Bauder Extension Unit Housing



High density PIR housing to ensure correct seating of the extension unit. Can be used in conjunction with Bauder flatboard insulation to create the correct sump depth or ensure the level position of the extension unit to the waterproofing system.

Bauder Bitumen Parapet Outlet DN 100



Suitable as a secure through chute to external hopper drainage when used in conjunction with the 110mm connection pipe (available from Bauder), as an alternative to traditional lead chute fabrication.

Incorporating an angled base facing for ease of installation.

A flexible vapour barrier seal component should be used as part of the waterproofing installation when a warm roof design is specified, where insulation is incorporated on the vertical abutment. Please see below:

Parapet – Flexible Vapour Barrier Seal DN 100



Vertical insulation 30mm-80mm: Conventional timber must be used to form an isolation frame around the outlet that enables the vapour barrier and underlayer to form a 100mm overlap seal.
Vertical Insulation 80mm plus: Formation of a timber frame is unnecessary. However, a flexible vapour barrier component must be used to seal the pipe entry where it passes through the parapet wall or kerb.

The reason for the different method of detailing is due to the need to accommodate the outlet spigot and connecting pipe socket.

Parapet Connection Pipe DN 100



A 500mm length polypropylene 110mm "O" ring socketed connection pipe for connection to the parapet outlet.

This can also be connected to externally fixed 110mm pipework, but should remain accessible for maintenance. We do not recommend this outlet for use within concealed and inaccessible internal pipework.

REFURBISHMENT OUTLETS

Bauder Bitumen Refurbishment Warm Roof Outlet DN 63 & 90



Available in both 63mm and 90mm spigot sizes. The 63mm spigot, when fitted with the special 'push fit' seal, will accommodate internal diameters ranging from 68mm-86mm and is designed to fit inside existing 75 mm pipework or within existing 75mm (3") outlets.

The 90mm spigot when fitted with the special 'push fit' seal, will accommodate internal diameters ranging from 98mm-107mm and is designed to fit inside existing 100 mm pipework or within existing 100mm (4") outlets.

These outlets are designed to be used within a replacement roof system incorporating insulation (warm roof) when overlaying existing waterproofing, either connecting to existing pipework or through existing outlets where these cannot be removed and the nominal bore is suitable.

When retaining the existing outlet, it is important that the waterproof seal on the end of the outlet spigot of the Bauder Refurbishment Warm Roof Outlet passes beyond the existing outlet and seals to the pipework below it. The length of spigot required to achieve this should be determined and then the spigot cut to the required length.

Bauder Refurbishment Warm Roof Outlet Housing Unit 63 & 90



High density PIR housing to ensure correct seating of the Warm Roof refurbishment outlet.

Can be used in conjunction with Bauder flatboard insulation to create the correct sump depth or ensure the level position of the outlet to the waterproofing system.

Bauder Bitumen Refurbishment Outlet DN 95 & 125



Available in both 95mm and 125mm spigot sizes.

95mm outlet: There are two flexible seals supplied with the outlet. The smaller seal (lip seal) to fit pipework 100-110mm and the larger seal (profiled seal) to fit pipework 107-140mm. There is no reason to use both seals, so discard the seal that is not required.

125mm outlet: There are two flexible seals supplied with the outlet. The smaller seal (lip seal) to fit pipework 134-144mm and the larger seal (profiled seal) to fit pipework 140-168mm. There is no reason to use both seals, so discard the seal that is not required.

When retaining the existing outlet, it is important that the waterproof seal on the end of the outlet spigot of the Bauder Refurbishment Outlet passes beyond the existing outlet and seals to the pipework below it. The length of spigot required to achieve this should be determined and then the spigot cut to the required length.

Connection to Pipework

Our vertical spigot outlets are suitable for connection to:

- Socketed and socket-less cast iron pipework to BS416:1973 and EN 887. Please note that socketed pipework will require cold caulking or the use of PVC to cast iron adapters.
 - HDPE pipes with appropriate proprietary coupling.
 - PVC 'O' ring socketed soil grade pipework to BS 4514:1983. Connection can be made directly or using shrink adapters where required.
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ACCESSORIES

Bauder Parapet Emergency Overflow Stainless Steel DN 70



When used within a warm roof system where the vertical upstand is to be insulated, there are two methods of detailing, with the method used being dependent upon the insulation depth required.

Locking Leaf Guard – Long Leg



Heavy duty lockable leaf guard. Can be retro fitted or used as a replacement to the dome grate supplied with the Outlet.
The Long Leg product is designed for use with both the Bauder Compact Extension Unit &/or Compact Vertical Outlet and Bauder Extension Unit &/or Vertical Outlet.

Locking Leaf Guard – Short Leg



Heavy duty lockable leaf guard. Can be retro fitted or used as a replacement to the leaf guard supplied with the Outlet.
Suitable for use with Bitumen Refurbishment Warm Roof Outlets only.

Reinforcement Plate



Galvanised steel reinforcement plate for use as a support for Bauder Vertical and Compact Vertical Insulated Outlets when installed to profiled metal decking.

OUTLET INFORMATION

PRODUCT SELECTOR	Compact Vertical Outlet DN 100	Bitumen Vertical Outlet DN 70 & 150	Warm Roof Refurbishment Outlet DN 63 & 90	Cold Roof Refurbishment Outlet DN 95 & 125	Parapet Outlet DN 100
Bitumen connection flange	Y	Y	Y	Y	Y
Insulated Extension Unit available	Y	Y			
Extension housing unit available	Y	Y	Y		
Suitable for internal drainage	Y	Y	Y	Y	
Suitable for external drainage					Y
Suitable for new build	Y	Y			Y
Suitable as a replacement outlet	Y	Y			
Suitable for retro-fit installation			Y	Y	
Suitable for shallow deck construction	Y		Y	Y	
Suitable for deeper deck construction		Y	Y		
Suitable for long leg leaf guard	Y	Y			
Suitable for short leg leaf guard			Y		

OUTLET FLOW RATE PERFORMANCE

DRAINAGE FLOW RATES

Compact Vertical Outlet DN 100	6.1 litres/sec
Bitumen Vertical Outlet DN 70	7.1 litres/sec
Bitumen Vertical Outlet DN 150	7.2 litres/sec
Parapet Outlet DN 100	0.7 litres/sec
Warm Roof Refurbishment Outlet DN 63	6.1 litres/sec
Warm Roof Refurbishment Outlet DN 90	5.7 litres/sec
Cold Roof Refurbishment Outlet DN 95	4.0 litres/sec
Cold Roof Refurbishment Outlet DN 125	6.0 litres/sec

*Above figures based upon a 35mm head of water pressure – according to BS EN 12056-3:2000
The shape of the bowl affects the flow rate performance; however the flow rate increases as the head of water increases. For project specific drainage advice and/or calculations please contact your local Area Technical Manager.