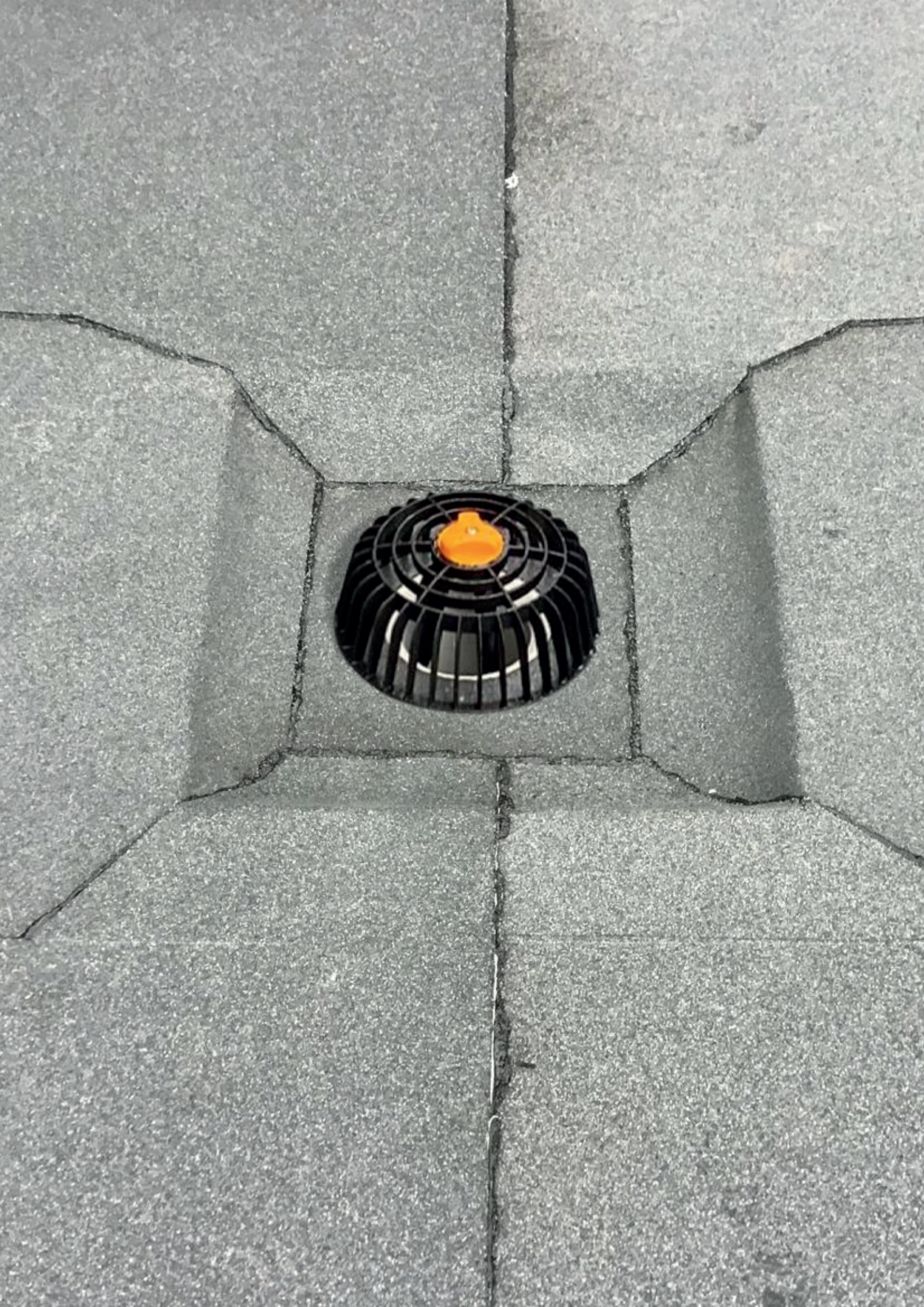


## Rainwater Outlets

Flat roof solutions









# Rainwater Outlets

## Maintaining waterproofing and outlet compatibility at drainage points of the roof

When specified within Bauder waterproofing systems as an integrated component, these products are included within our system guarantee. As part of Bauder's service, our technical department can provide drainage calculations for your flat roof project.

### Specifying rainwater outlets for a flat roof

Our range of outlets are suitable for both new build and refurbishment projects, and can be used in warm, cold, and inverted roof constructions.

### Bitumen membrane insulated rainwater outlets

Bauder polyurethane insulated outlets offer independently-assessed flow rates and maintain thermal continuity at drainage points for warm and inverted roof constructions. The BRE-certified high thermal value of the rigid foam body prevents condensation from forming on the underside of the outlet body.

### Single ply outlets

Specifically for our Thermofol and Thermoplan systems. The outlet flanges are finished either in a compatible surface or in our PVC or FPO membrane to allow direct welding of the single ply field sheet to the flange.

### Cold applied liquid system outlets

Refurbishing a roof with a cold applied liquid solution will often involve an overlay of the current system. In this scenario, the existing outlet will often be retained and waterproofed as part of the installation.

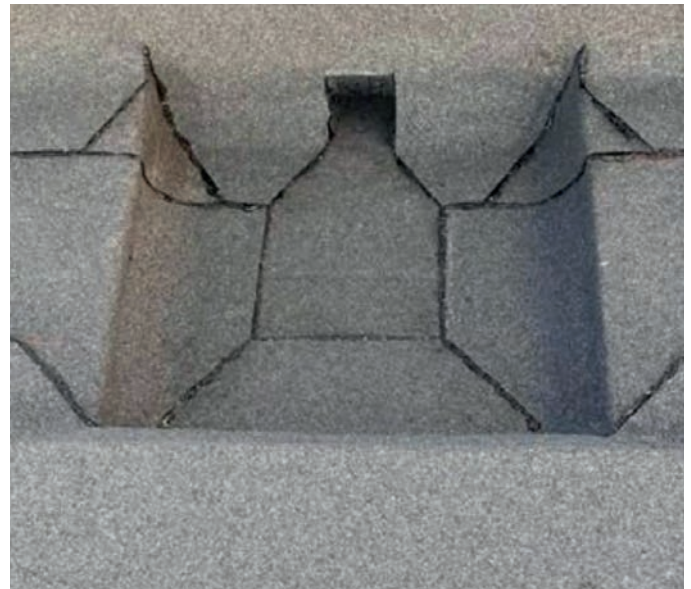
Where a cold applied liquid warm roof is specified or new outlets are required, the solution will utilise Bauder rigid PVC outlets. Outlets with PVC membrane and sanded/mica surfaced bitumen flanges can also be used.

### Hot melt outlets

Thermally-insulated outlets connecting to conventional gravity drainage systems with independently-assessed flow rates. The outlets incorporate an integrated screw-down clamping ring and neoprene gasket for mechanical restraint to the waterproofing.

### Blue roof flow restrictor outlets

Outlets are available on blue roofs for our bitumen membrane systems and hot melt systems. The flow restrictor is fixed according to the flow rates calculated for the building, and the central overflow pipe for each restrictor is cut to the H-Max for the roof area.



# Designing Effective Drainage on a Flat Roof

## Overview of considerations

It is a requirement of Building Regulation Part H that adequate provision is made for rainwater to be carried from the roof of the building. According to BS 6229 & BS 8217, flat roofs should be designed with minimum falls of 1:40 to ensure a finished fall of 1:80 can be achieved, allowing for any inaccuracies in the construction. This applies to general roof areas along with any internal gutters.

Our technical department can provide specialist drainage calculations for the building so that water drains effectively to clear the roof's surface either via internal rainwater outlets and downpipes or via external guttering systems or hoppers.

If falls are to be created on a roof, our technical department will design the bespoke tapered insulation scheme in accordance with the latest versions of BS 6229 for falls on flat roof surfaces and BS 5250 for control of condensation in a building. All our layout schemes are designed for minimal waste.

### Emergency or telltale overflows

A tell-tale overflow has a low flow rate and is only intended to indicate to the building user that there is a blockage or challenge on the roof and urgent maintenance is required.

Emergency overflows are used in conjunction with other roof drainage outlets to ensure there is no water ingress into the building and that the structural load of the roof is not exceeded. When water flows out of the emergency overflow it provides a visible warning that the roof is holding excessive water.





**When designing a rainwater scheme, the following considerations should apply:**

- Always make provision for an additional back-up outlet to ensure that the roof will continue to drain in the event of a blockage, even if a single outlet is deemed to have sufficient flow to drain the area concerned.
- Allow a safety factor of 10% above the published maximum outlet capacity to take account of greater than designed storm intensities.
- Ensure outlets are evenly distributed. Exact location and number to be confirmed by the appropriate engineer.
- The requirement and location for overflows is based upon variables including attitude to risk and should be determined by the appropriate engineer. A full capacity overflow should be provided when there is only one outlet on the roof area.
- A tell-tale overflow has a low flow rate and is only intended to indicate to the building user that there is a blockage or challenge on the roof and urgent maintenance is required.
- Emergency overflows or tell-tale overflows, when provided on flat roofs with parapets and in non-eaves gutters, reduce the risk of overspilling of rainwater into a building or structural overloading.
- Where the roof design drains internally and direct to sump or outlet locations, additional outlets/overflows should be considered as a blockage may cause the water to back-up and overflow the high point with the possibility of structural overload.
- All rainwater outlets should be inspected twice yearly for blockages and to clean out the outlets and remove any debris or leaf litter as part of the routine maintenance schedule.

**Note:** Connectivity to below deck drainage pipework is the responsibility of the plumbing contractor/drainage engineer.

# Bitumen Membrane System Outlets

## Rainwater outlets for Bauder bitumen membrane systems

Maintaining waterproofing and outlet compatibility at drainage points of the roof.

### Bauder Bitumen Compact Vertical Outlet DN100

Suitable for most deck types, supplied in 100 mm (internal diameter) to suit 110 mm internal pipework. It can be used where the deck construction is shallower, due to the more compact bowl and shorter spigot. The outlet is supplied with a polyamide domical leaf grille that permits free flow of water while preventing leaf litter or other debris from entering. Spigot length of 75 mm (210 mm including bowl).

The outlet can be used in conjunction with Bauder Bitumen Compact Extension Unit and Bauder Compact Bitumen Extension Unit Housing when specified within warm roof systems.



Bauder Bitumen Compact Vertical Outlet DN100

### Bauder Bitumen Compact Extension Unit

Incorporated within warm roof system construction to maintain thermal integrity. Available in spigot length 60 mm - 220 mm to accommodate the insulation thickness specified.



Bauder Bitumen Compact Extension Unit

### Bauder Compact Extension Unit Housing

High-density PIR housing to ensure correct seating of the Bauder Bitumen Compact Extension Unit. It 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 Compact Extension Unit Housing

**Note:** Please see page 19 for outlet flow rate data performance.

### Bauder Bitumen Vertical Outlet DN70 & 150

Suited to most deck types and available in 70 mm and 150 mm (internal diameter) to suit 75 mm and 160 mm internal pipework. The 70 mm outlet can be used in conjunction with a BauderBLUE roof system.

The outlet is supplied with a polyamide domical leaf grille that allows free flow of water while preventing debris from entering. The outlet can be used in conjunction with Bauder Bitumen Extension Unit and Bauder Bitumen Extension Unit Housing when specified within warm roof systems.

### Bauder Bitumen Extension Unit

Incorporated within a warm roof system construction to maintain thermal integrity. Available in spigot length 60 mm to 220 mm to accommodate the insulation thickness specified.

### Bauder Extension Unit Housing

The high-density PIR housing ensures correct seating of the Bauder Bitumen Extension Unit. Can be used in conjunction with Bauder flatboard insulation to create the correct sump depth or ensure the level position to the waterproofing system.

### Accessories

#### Locking Leaf Guard – Long-Leg Lockable Leaf Guard

Can be retrofitted or used as a replacement to the leaf grille supplied with the outlet. The long-leg product is designed for use with both Bauder Bitumen Compact Extension Unit and/or Bauder Bitumen Compact Vertical Outlet DN100 and Bauder Bitumen Vertical Outlet DN70 & 150.

#### 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.

**Note:** Please see page 19 for outlet flow rate data performance.



Bauder Bitumen Vertical Outlet DN70 & 150



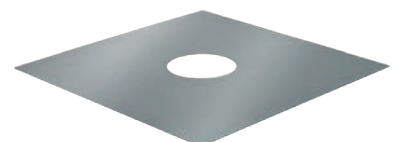
Bauder Bitumen Extension Unit



Bauder Extension Unit Housing



Locking Leaf Guard



Reinforcement Plate

# Bitumen Membrane System Outlets

## Refurbishment outlets for Bauder bitumen systems

Designed to be used within a replacement roof system when connecting to existing pipework or outlets, our range of refurbishment outlets come with a pre-attached bituminous flange, plus a stainless steel leafguard and mechanical seal.

For cold applied liquid systems, Bauder Bitumen Vertical Refurbishment Outlets with mica bitumen membrane flange can be used with Bauder LiquiTEC and LiquiTOP systems in accordance with the appropriate installation guide.

### Bauder Bitumen Vertical Refurbishment Outlet DN70

When fitted into an existing outlet using the mechanical seal, the stainless steel spigot will accommodate internal diameters ranging from 73 to 84 mm. Spigot length of 400 mm.

### Bauder Bitumen Vertical Refurbishment Outlet DN95

When fitted into an existing outlet using the mechanical seal, the spigot will accommodate internal diameters ranging from 95 to 110 mm. Spigot length of 400 mm.

### Bauder Bitumen Vertical Refurbishment Outlet DN145

When fitted into an existing outlet using the mechanical seal, the spigot will accommodate internal diameters ranging from 146 to 168 mm. Spigot length of 400 mm.

## Accessories

### Mechanical Seal Tightening Tool

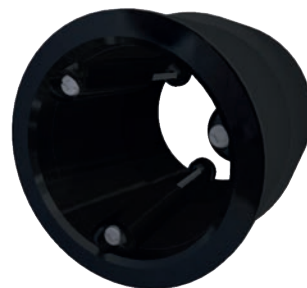
Must be used in conjunction with Bauder Bitumen Vertical Refurbishment Outlets for tightening the mechanical seal.



Bauder Bitumen Vertical Refurbishment Outlet



Leaf Guard for Bitumen Vertical Refurbishment Outlet



Mechanical Seal for Bitumen Vertical Refurbishment Outlet



Mechanical Seal Tightening Tool

**Note:** Please see page 19 for outlet flow rate data performance



# Parapet outlets and overflow for Bauder bitumen systems

Designed to be used with Bauder bituminous waterproofing membranes when used through walls or parapets to external drainage via a hopper head and/or downpipe. The products are used in warm, cold and inverted roof construction types.

## **Bauder Bitumen Letterbox Parapet Outlet DN205 inc. stainless steel leaf guard**

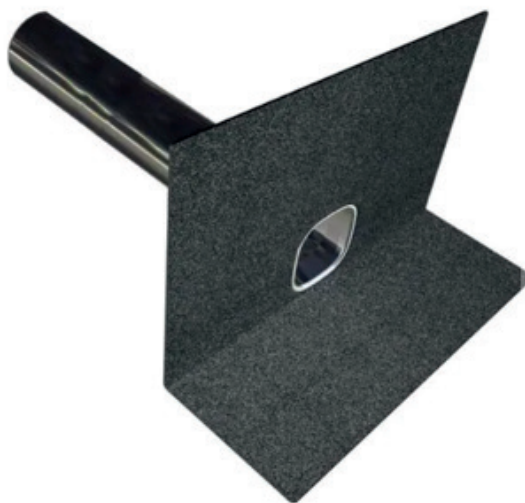
A secure through chute to external hopper drainage as an alternative to traditional lead chute fabrication. incorporates a 600 mm stainless steel spigot and comes with an integral bituminous flange. The letterbox parapet stainless steel leaf guard is supplied in conjunction with the outlet. Used in warm, cold, and inverted roof constructions. Spigot length of 600 mm.



Letterbox Parapet Outlet DN205 inc. stainless steel leaf guard

## **Bauder Bitumen Parapet Outlet DN100 inc. stainless steel leaf guard**

A secure through outlet to external hopper drainage or pipework as an alternative to traditional lead chute fabrication. Incorporates a 600 mm, round stainless steel spigot and comes with an integral bituminous flange. The parapet stainless steel leaf guard is supplied in conjunction with the outlet. Spigot length of 600 mm.



Bauder Bitumen Parapet Outlet DN100

## **Bauder Bitumen Parapet Tell-Tale Overflow DN50**

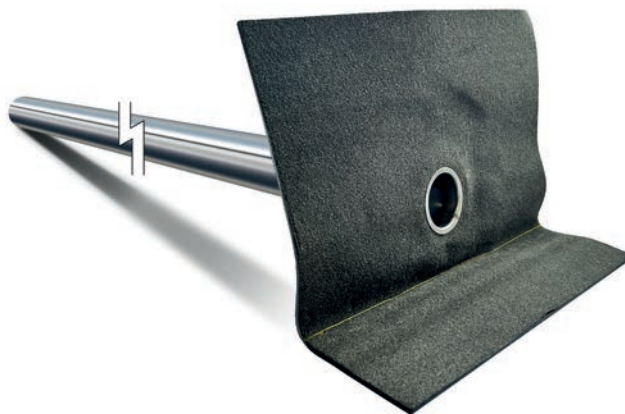
Parapet Tell-Tale Overflow with a 1200 mm long stainless steel spigot. Comes with a flexible bitumen flange.

For use with Bauder bituminous waterproofing membranes. It is used in conjunction with other roof drainage outlets to ensure there is no water ingress into the building, the structural load of the roof is not exceeded, and to provide a visible warning that the roof is holding excessive water.

It is not suitable or intended for connection to internal pipework that is within a wall construction or boxed in and is inaccessible after construction.

Visible overflows are recommended as part of BS12056-3 guidelines.

**Note:** Please see page 19 for outlet flow rate data performance.



Bauder Bitumen Parapet Tell-Tale Overflow DN50

# Single Ply System Outlets

## Rainwater outlets for Thermofol systems

The outlet flanges are finished either in a compatible surface or in our PVC membrane to allow direct welding of the single ply field sheet to the flange.

### Bauder Cold Applied Liquid Systems

BauderPVC Rigid Outlets and BauderTHERMOFOL membrane flange outlets can also be used with Bauder LiquiTEC and LiquiTOP systems when used with the appropriate primer.

### BauderPVC ABL-R Rigid Vertical Outlet

A rigid PVC rainwater outlet enabling Thermofol membrane to be welded to the flange plate. UV-stable throughout. The unbacked Thermofol membrane should be heat welded up to the aperture to ensure colour consistency on the roof. Available for 75, 100, and 160 mm downpipe. Spigot length is 315 mm for all diameters.



BauderPVC ABL-R Rigid Vertical Outlet

### BauderTHERMOFOL Stainless Steel Rainwater Outlet

A stainless steel outlet with factory installed PVC membrane flange. Supplied with an O-ring and a wire ball leaf grill. Available for 75, 110, and 160 mm downpipe. Spigot length is 400 mm for all diameters.



BauderTHERMOFOL Stainless Steel Rainwater Outlet

### BauderPVC DSP-R 110 Parapet Outlet

110mm rigid PVC parapet rainwater outlet (excluding leaf guard) enabling Thermofol membrane to be welded to the flange plate. UV-stable throughout. The unbacked Thermofol membrane should be heat welded up to the aperture to ensure colour consistency on the roof. Spigot length is 480 mm.



BauderPVC DSP-R 110 Parapet Outlet

**Note:** Please see page 19 for outlet flow rate data performance.



### **BauderPVC NLF-R 50 Emergency Overflow**

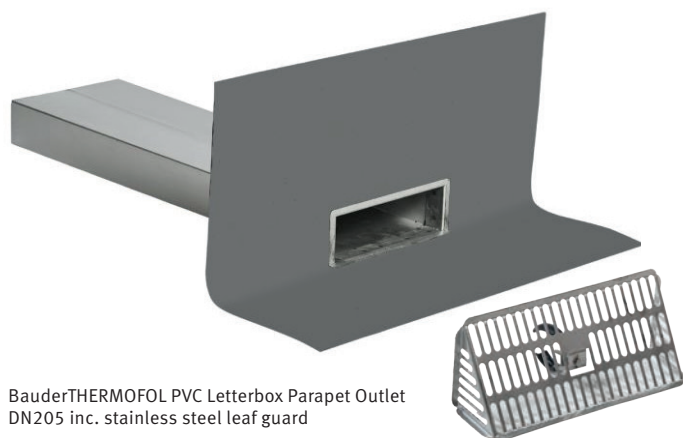
50 mm diameter emergency overflow rainwater outlet (without leafguard) compatible with Thermofol membrane that can be welded to PVC membrane upstands. Manufactured in light grey colour (RAL 7035). Spigot length is 500 mm.



BauderPVC NLF-R 50

### **BauderTHERMOFOL PVC Letterbox Parapet Outlet DN205 inc. stainless steel leaf guard**

A high-flow-rate PVC parapet outlet (compared to a circular parapet chute) including stainless steel leaf guard for roof drainage systems, specifically designed for use in through-wall applications or parapets. The factory-bonded membrane flange attached to the outlet allows for easy installation. Suitable for use in new build or refurbishment applications. Spigot length is 600 mm.



BauderTHERMOFOL PVC Letterbox Parapet Outlet DN205 inc. stainless steel leaf guard

### **BauderSYN KFK-R UNI Leaf Guard**

Universal leaf guard compatible with Thermofol and Thermoplan Bauder vertical rainwater outlets for preventing debris blocking the outlet. Suitable for round 63-200 mm diameter. A straightforward ratchet system enables quick and tool-free removal of the guard.



BauderSYN KFK-R UNI Leaf Guard

**Note:** Please see page 19 for outlet flow rate data performance.

# Single Ply System Outlets

## Rainwater outlets for Thermoplan systems

The outlet flanges are finished either in a compatible surface or in our FPO membrane to allow direct welding of the single ply field sheet to the flange.

### BauderFPO ABL-R Rigid Vertical Outlet

A rigid FPO rainwater outlet enabling Thermoplan membrane to be welded to the flange plate. UV-stable throughout. The unbacked Thermoplan membrane should be heat welded up to the aperture to ensure colour consistency on the roof. Available for 75, 110, and 160 mm downpipes. Spigot length is 315 mm for all diameters.



BauderFPO ABL-R Rigid Vertical Outlet

### BauderTHERMOPLAN Stainless Steel Rainwater Outlet

A high-performance stainless steel rainwater outlet with factory-installed FPO membrane flange. Supplied with an O-ring and a wire ball leaf grill. Spigot length is 400 mm for all diameters.



BauderTHERMOPLAN Stainless Steel Rainwater Outlet

### BauderFPO DSP-R 90 Parapet Outlet

90 mm diameter rigid FPO parapet rainwater outlet enabling Thermoplan membrane to be welded to the flange plate. UV-stable throughout. The unbacked Thermoplan membrane should be heat welded up to the aperture to ensure colour consistency on the roof. Spigot length is 480 mm.



BauderFPO DSP-R 90 Parapet Outlet

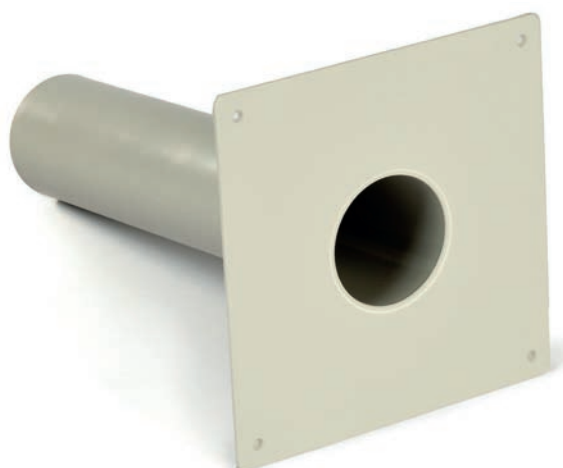
**Note:** Please see page 19 for outlet flow rate data performance.



### BauderFPO NLF-R 63 Emergency Overflow

An extruded FPO emergency overflow outlet compatible with Thermoplan membrane comprising a 63 mm diameter through wall, with a spigot length of 460 mm. The outlet is manufactured in a pearl white colour.

**Note:** Bauder outlets are sized to show the diameter of the spigot they will connect into. For information on non-standard sizes and refurbishment applications, please contact Bauder's technical department.



BauderFPO NLF-R 63

# Hot Melt System Outlets

## Rainwater outlets for Hot Melt systems

Insulated outlets offering thermal continuity at drainage points

### **Bauder Hot Melt Compact – Vertical Outlet DN100**

For use within Bauder hot melt inverted and hot melt cold roofs.

A thermally-insulated outlet incorporating a one-piece rigid polyurethane foam body that forms the integral sump and spigot designed for use when connecting to conventional gravity drainage systems. The thermal value of the rigid foam body prevents condensation from forming on the underside of the outlet body.

The integrated screw-down clamping ring ensures security between the waterproofing system and the outlet. The polyamide domical leaf grille permits the 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.

### **Hot Melt Blue Roof Compact Vertical Outlet DN70**

For use within Bauder hot melt inverted and cold blue roofs in conjunction with the BauderBLUE ST-HM adjustable flow restrictor.

A thermally-insulated outlet incorporating a one-piece rigid polyurethane foam body that forms the integral sump and spigot designed for use when connecting to conventional gravity drainage systems. The thermal value of the rigid foam body prevents condensation from forming on the underside of the outlet body. The integrated screw-down clamping ring ensures security between the waterproofing system and the outlet.



Leaf guard for Hot Melt Compact Vertical Outlet DN100



Bauder Hot Melt Compact Vertical Outlet DN100 and DN70

**Note:** Please see page 19 for outlet flow rate data performance.



# Blue Roof Rainwater Outlets

## Flow restrictor components for blue roof systems

The flow restrictor inserted into an outlet restricts the discharge of stormwater to a calculated and defined flow rate to significantly slow down the volume of water leaving the site from a blue roof.

**The waterproofing rainwater outlet required for a blue roof system is either the Hot Melt Blue Roof Compact Vertical Outlet DN70 or the Bauder Bitumen Vertical Outlet DN70, depending on the waterproofing system specified, and are covered in the previous sections.**

### BauderBLUE ST adjustable flow restrictor

Adjustable flow restrictor designed to be fitted into a standard Bauder Vertical Outlet DN70 as part of a Bauder blue roof system. The BauderBLUE ST-HM is for specification within our hot melt waterproofing and the BauderBLUE ST-B is for our Bauder Total Roof System.

The flow restrictor is fitted into the rain water outlet and is used to control the flow of water from a blue roof. The baseplate has a stainless steel slide plate which can be set to different positions to control the flow rate for the outlet. The central overflow height can also be adjusted to match the requirement detailed in the blue roof calculations (carried out as part of our specification process).

### BauderBLUE SR blue roof flow restrictor

A bespoke flow restrictor to be used in conjunction with a standard Bauder vertical outlet DN70. The BauderBLUE SR-HM is for our hot melt waterproofing and the BauderBLUE SR-B is for our Bauder Total Roof System.

Comprises four parts: baseplate, overflow pipe, inner seal and outer seal. The polyamide baseplate fits within the 70 mm vertical outlet, with the EPDM outer seal creating a watertight fit. The HDPE overflow slots into the central hole of the baseplate with an inner EPDM seal preventing any leaks. The baseplate has a number of 10 mm restrictive flow holes bespoke to the project.



BauderBLUE ST-HM adjustable flow restrictor (Hot Melt)



BauderBLUE SR-B blue flow rate restrictor (Bauder Total Roof System)

**Note:** Please see page 19 for outlet flow rate data performance.

# Blue Roof Rainwater Emergency Overflow

## Outlet for blue roof systems

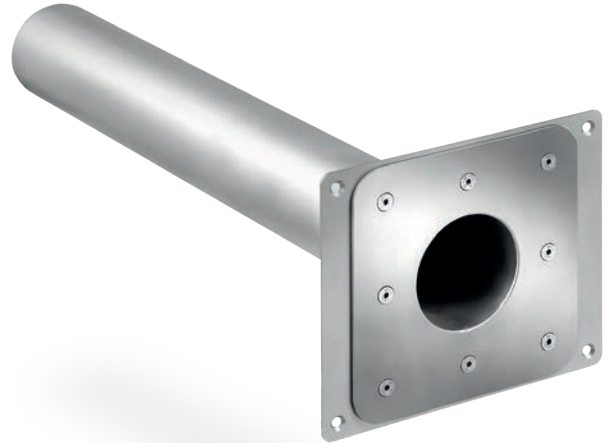
Emergency overflows are required for drainage functionality on a blue roof.

### **Bauder Parapet Emergency Overflow Stainless Steel DN70**

A stainless steel parapet overflow with an 800 mm long spigot.

This overflow is designed to be a telltale overflow for blue roofs and provides a visible warning that the roof is holding excessive water. It is used in conjunction with other roof drainage outlets to ensure that there is no water ingress into the building and that the structural load of the roof is not exceeded. Visible emergency overflows are recommended as part of NFRC Technical Guidance Note for the construction and design of blue roofs.

For use with Bauder bituminous waterproofing and liquid applied membranes. It is supplied with a fixing plate and fixing plate flange. It is not suitable or intended for connection to internal pipework.



Bauder Parapet Emergency Overflow Stainless Steel DN70



# Project Study

## Cadworks

BauderBLUE STORMvoid System with Bauder Total Roof System (BTRS).

### Synopsis

Cadworks is a new build construction of 94,000 sq. ft Grade A office space in Glasgow city centre, Scotland. The building is the city's first office that is Net Zero Carbon in Operation, achieved in various ways.

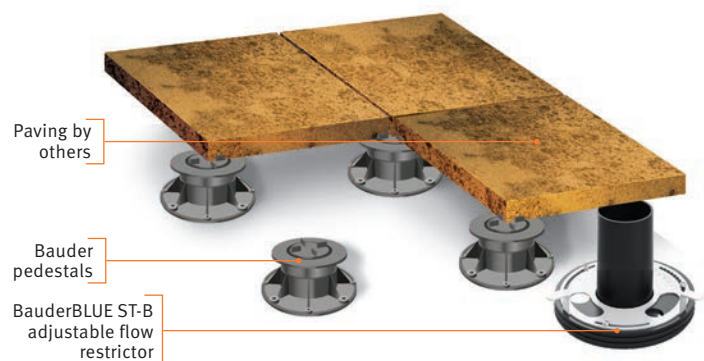
### The specification

To meet the client's sustainability requirements of achieving a BREEAM rating of 'Excellent' and to comply with planning requirements for attenuating high volumes of rainwater, BauderBLUE STORMvoid System was specified. This blue roof comprised Bauder Total Roof System (BTRS) bituminous waterproofing with warm roof insulation.

The blue roof design involved detailed technical calculations to determine the optimal water egress rate, enabling Bauder to design each flow restrictor. Bespoke filter layers were specified for the outlets to prevent excessive water flow through the structure, ensuring accuracy of levelling, sizing, and positioning. The approach guaranteed the blue roof would perform to building requirements while supporting the functionality of the city's drainage infrastructure.



Photo credit: Bowmer+Kirkland



# Bauder Outlets Technical Information

PRODUCT SELECTOR	BITUMEN OUTLET TECHNICAL INFORMATION					
	Compact Vertical Outlet DN100	Bitumen Vertical Outlet DN70	Bitumen Vertical Outlet DN150	Bitumen Vertical Refurbishment Outlets DN70, 95 & 145	Letterbox Parapet Outlet DN205 Inc. s/s leaf guard	Parapet Outlet DN100 Inc. s/s leaf guard
Bitumen connection flange	✓	✓	✓	✓	✓	✓
Insulated Extension Unit available	✓	✓	✓			
Extension Housing Unit available	✓	✓	✓			
Suitable for internal drainage	✓	✓	✓	✓		
Suitable for external drainage - hopper					✓	✓
Suitable for external drainage - pipework						✓
Suitable for new build	✓	✓	✓	✓	✓	✓
Suitable as a replacement outlet	✓	✓	✓	✓	✓	✓
Suitable for retrofit installation				✓	✓	✓
Suitable for shallow deck construction	✓			✓		
Suitable for deeper deck construction		✓	✓			
Suitable for long leg leaf guard	✓	✓	✓			
Suitable for blue roof systems		✓				

HOT MELT OUTLET TECHNICAL INFORMATION		
PRODUCT SELECTOR	Compact Vertical Outlet DN100	Compact Vertical Outlet DN70
Inverted Roof	✓	
Blue Inverted Roof		✓
Cold Roof	✓	
Blue Cold Roof		✓
Suitable for New Roof	✓	✓



BITUMEN OUTLET FLOW RATE DATA PERFORMANCE	
Product	Drainage flow rate (l/s) *
Compact Vertical Outlet DN100	6.1
Bitumen Vertical Outlet DN70	7.1
Bitumen Vertical Outlet DN150	7.2
Bitumen Vertical Refurbishment Outlet DN70	2.55
Bitumen Vertical Refurbishment Outlet DN95	4.08
Bitumen Vertical Refurbishment Outlet DN145	5.48
Letterbox Parapet Outlet DN205 inc. stainless steel leaf guard	2.02
Parapet Outlet DN100 inc. stainless steel leaf guard	1.06
SINGLE PLY OUTLET FLOW RATE DATA PERFORMANCE	
Product	Drainage flow rate (l/s) *
BauderPVC ABL-R 75 Rigid Vertical Outlet	4.4
BauderPVC ABL-R 110 Rigid Vertical Outlet	6.0
BauderPVC ABL-R 160 Rigid Vertical Outlet	7.5
BauderTHERMOFOL Stainless Steel Rainwater Outlets DN70	2.39
BauderTHERMOFOL Stainless Steel Rainwater Outlets DN100	4.45
BauderTHERMOFOL Stainless Steel Rainwater Outlets DN150	6.76
BauderPVC DSP-R 110 Parapet Outlet	0.79
BauderTHERMOFOL PVC Letterbox Parapet Outlet DN205	2.02
BauderFPO ABL-R 75 Rigid Vertical Outlet	4.4
BauderFPO ABL-R 110 Rigid Vertical Outlet	6
BauderFPO ABL-R 160 Rigid Vertical Outlet	7.5
BauderFPO DSP-R 90 Parapet Outlet	0.75
BauderTHERMOPLAN Stainless Steel Rainwater Outlet DN70	2.39
BauderTHERMOPLAN Stainless Steel Rainwater Outlet DN100	4.45
BauderTHERMOPLAN Stainless Steel Rainwater Outlet DN150	6.76
BLUE ROOF OVERFLOW OUTLET DRAINAGE RATES	
Product	Drainage flow rate (l/s) *
BauderBLUE SR-B flow restrictor (central overflow)	1.9
BauderBLUE SR-HM flow restrictor (central overflow)	0.5
BauderBLUE ST-B flow restrictor (central overflow)	1.9
BauderBLUE ST-HM flow restrictor (central overflow)	1.9
Bauder Parapet Emergency Overflow Stainless Steel DN70	0.5
HOT MELT OUTLET FLOW RATE DATA PERFORMANCE	
Product	Drainage flow rate (l/s) *
Hot Melt Compact Vertical Outlet DN100	6.1
Hot Melt Blue Roof Compact Vertical Outlet DN70	7.1

\*Flow rate performance data using a 35 mm head of water pressure (including leaf guard) based upon requirements of 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. Further flow rate performance data can be obtained within the Technical Data Sheet for each outlet. For bespoke drainage calculation performance data, please contact Bauder Limited.

Inverted blue roofs require specific project calculations when using our Hot Melt Blue Roof Compact Vertical Outlet DN70 in conjunction with BauderBLUE ST-HM and BauderBLUE SR-HM flow restrictors.

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**Reducing use of materials**



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