

Aluminium Roof Outlets - Two-Way Detail Outlets

Harmer Roof Two-Way Detail outlets are designed for applications where an angle is formed by the intersection of vertical and horizontal surfaces (for example, where a balcony or roof meets a parapet wall). They can be installed to provide either vertical or horizontal run-off and are suitable for use with most types of waterproofing membrane.

Two-Way Detail Outlets

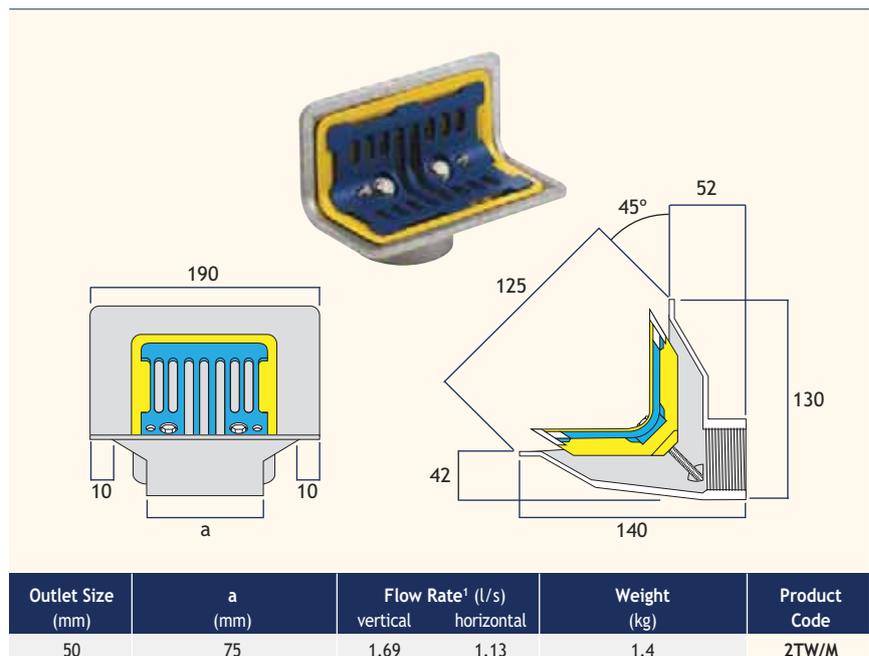
Two-Way Detail outlets have a female socket with parallel thread to BS EN 10226-1 for direct connection to threaded tube conforming with BS EN 10226-1. This tube is supplied with BS EN 10255 taper male thread which ensures a completely watertight joint when screwed home into the socket outlet. Screw outlets are particularly recommended where a connection to the outlet occurs within the thickness of a concrete slab. In such cases a threaded connection, achieved by use of a Harmer Roof Threaded Spigot Adaptor, will create a completely gas-tight seal within the slab. Harmer Two-Way Detail outlets can be connected to socketed and socketless cast iron pipework, HDPE pipework and PVC pipework by means of the Harmer Roof Threaded Spigot Adaptor with appropriate Harmer coupling. (See page 33).



Mini Two-Way

Specially designed for connection to 50mm pipework in situations where the drainage requirement is small, such as domestic balconies. Outlet connection is 2" BSP thread.

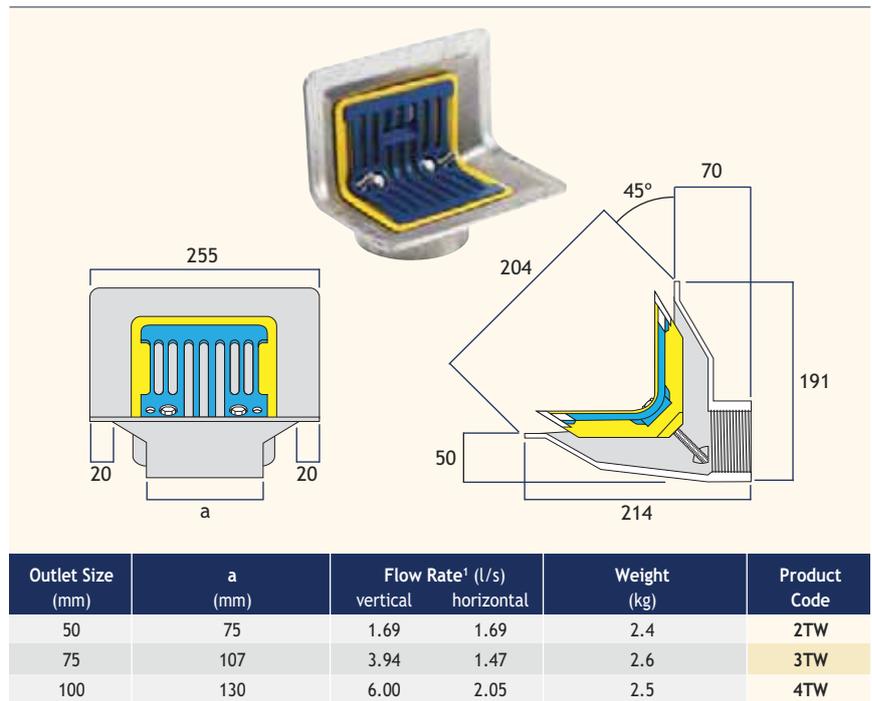
Flow Rate Note 1 (applies to all tables)
Flow rates are in litres per second to rainwater pipe capacity limits of BS EN 12056. Contact Harmer Technical Services for variable outlet performance to specific depth of water and rainfall intensity.



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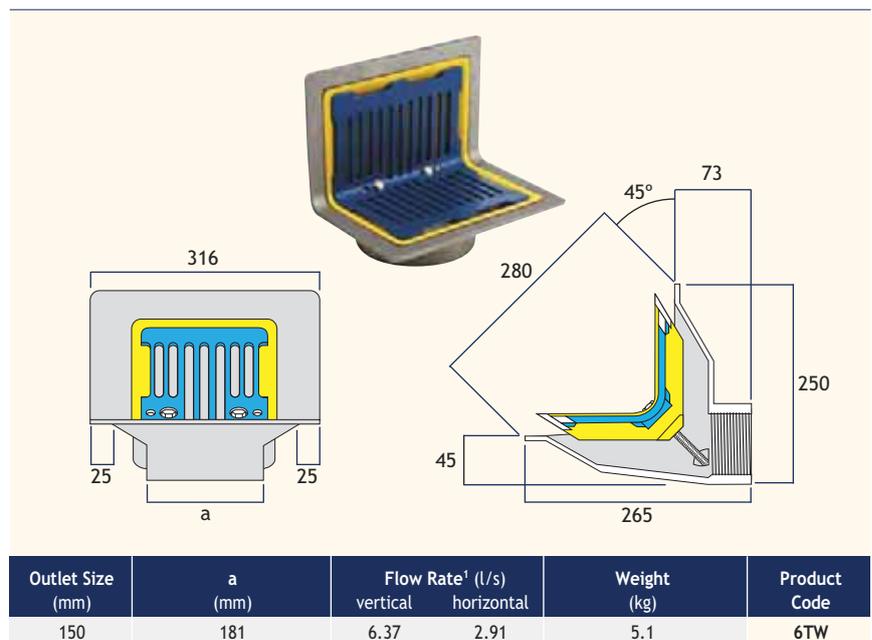
Regular Two-Way

The Regular Two-Way is designed for use in many applications, the sump is compact yet provides adequate drainage for most parapet applications, it has three outlet options in 2", 3", and 4" BSP thread.



Large Two-Way

The Large Two-Way is designed for use on large surface drainage areas where 150mm outlets are required. Outlet connection is 6" BSP thread.



Aluminium Roof Outlets - Parapet Downspouts

Harmer Roof Parapet Downspouts are designed to effectively discharge rainwater away from the building and avoid the problem of rainwater backtrack to the face of the wall. Parapet Downspouts can also be used in conjunction with parapet overflows.

Introduction

Harmer Roof Parapet Downspouts provide an attractive means of directing water away from the face of the building in such a way as to prevent the backtrack of rainwater from causing unsightly staining and damage.

Harmer Roof Parapet Downspouts can be used in combination with Alumasc rainwater pipes and hoppers and when colour co-ordinated, add to the finished appearance of the building.

Application

Downspouts are ideally suited for use with Harmer Detail Two-Way outlets fitted with Harmer Threaded Spigot Adaptors. They can also provide a discreet means of discharge when used with parapet overflows.

Material - Siliconised Cast Aluminium LM6
Material - Cast Iron

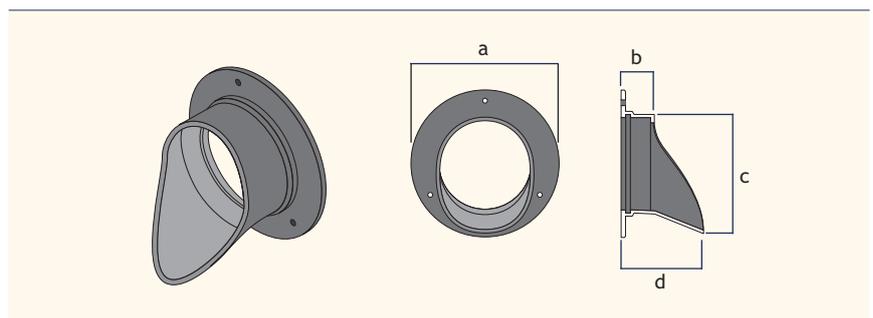
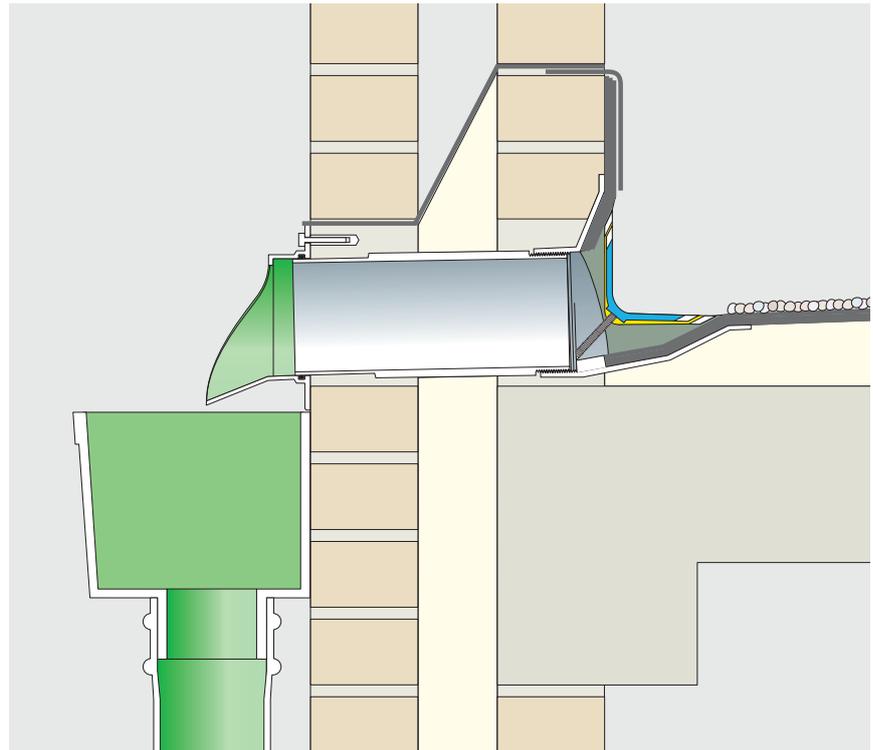
Finish

Aluminum downspouts are supplied in mill finish cast aluminium. Polyester powder coated finishes in Alumasc's standard colours are available to match external building finishes or colour coated rainwater pipes and hoppers.

Cast iron downspouts are supplied as standard in primed finish for painting on site or can be painted black by Alumasc to co-ordinate with other cast iron rainwater goods.

Connection

For ease of installation and perfect alignment, Harmer Downspouts push-fit connect to standard 110mm diameter plain ended pipe using an "O" ring seal and mechanical fixing into masonry.



Outlet Size (mm)	Material	a (mm)	b (mm)	c (mm)	d (mm)	Weight (kg)	Product Code
100	Aluminium	180	40	146	100	0.5	ADS/4*
100	Cast Iron	180	40	146	100	1.4	CDS/4

*Also available in polyester powder coated finish to Alumasc standard colour range or RAL.

Aluminium Roof Outlets - Accessories and Connections

Threaded Spigot Adaptors

The Threaded Spigot Adaptor has been designed to facilitate the connection of Harmer Roof AV and Detail threaded aluminium rainwater outlets to all types of pipe systems and presents an economic alternative to using a short length of steel gas tube to BS EN 10255 in the case of cast iron socketed or socketless systems.

Materials

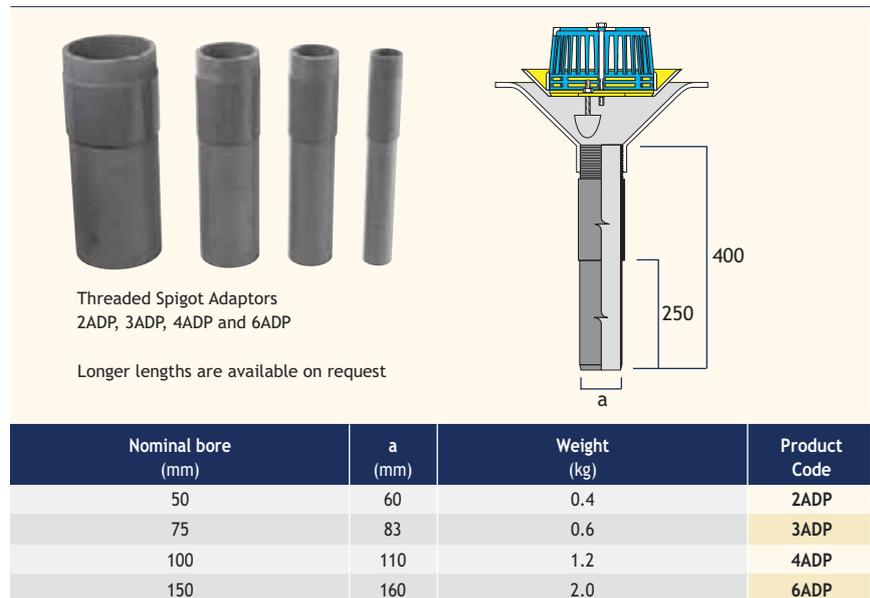
The Threaded Spigot Adaptor, made of ABS plastic, is supplied in 400mm lengths, taper-threaded externally at one end to BS EN 10226-1 and chamfered at the other end to BS 4514 and BS EN 1329-1 spigot dimensions. Sizes are available to suit 50, 75, 100 and 150mm nominal bore pipework.

Connection to Pipework

The Threaded Spigot Adaptor is screwed into the base of the outlet using a PTFE tape or silicone sealant to obtain a gas-tight seal. The spigot end of the adaptor can then be connected to the pipe socket. If necessary, the length of the spigot end of the adaptor can be reduced by cutting as required with a fine toothed saw.

The spigots of the Threaded Spigot Adaptors are suitable for direct connection to cast iron pipework to BS EN 877 and BS 416, HDPE pipework with appropriate Harmer couplings, PVC O-ring socketed pipe to BS EN 1329.

Refer to pipework connections on page 34. for appropriate couplings selection.



Fitting the Harmer Threaded Spigot Adaptor

Materials

- A cast aluminium body with female parallel threaded boss
- A 400mm long taper male threaded pipe sized for Standard BSP onward connection
- PTFE tape or silicone sealant

Preparation

- Wear protective (latex) gloves to avoid risk of injury or contamination during materials handling
- Process will require pipe chains for tightening the adapter into the outlet
- Degreasing agent and fine bristle brush
- Paper towels (this last relates to Method 2)

Connecting Adapter - Method 1

Using PTFE tape:

1. Inspect all threads and ensure they are free of dirt, grease and foreign matter.
2. Apply sufficient PTFE tape to the taper male threaded end of the adapter. This requires care as too much tape will limit the amount of travel within the parallel thread of the outlet and too little may prevent an effective seal.
3. Securely tighten the adapter into the outlet, using chains or similar equipment.

Connecting Adapter - Method 2

Using silicone sealant (DOW CORNING 791 recommended):

1. Inspect all threads and ensure they are free of dirt and foreign matter.
2. Allow for ventilation and degrease the threads of the outlet using a degreasing agent and fine brush.
3. Using paper towels ensure that threads are dry.
4. Apply a liberal coating of silicone sealant to the threads of the outlet and adapter and immediately tighten using chains or similar equipment.
5. A surplus of sealant will squeeze out indicating that all the thread void areas have filled.
6. Clean up with paper towels and dispose of appropriately.
7. Follow guidance cure advice on silicone product before subjecting outlet to water test.

For method 1 and 2 it is recommended that a Standing Water Test is undertaken before installation.