

SitaMulti

Cast-Iron Vertical Rainwater Outlets

Product Data Sheet



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General Information

SitaMulti rainwater outlets are a robust cast-iron construction providing for use in applications with increased fire performance requirements – particularly in conjunction with Radmat non-combustible insulation roofing systems. The SitaMulti features a clamping ring arrangement for mechanical connection to the surrounding waterproofing system. A telescopic Extension Unit of the same dimensions can have the spigot cut (to suit the depth of insulation) to provide a thermally-efficient configuration – installation can be aided with the inclusion of a pre-fabricated insulating body moulded in cellular glass foam insulation.

Features and Applications

- Suitable for Built-up Warm, Inverted and Cold Roof applications
- Not sensitive to the weather (UV/IR radiation, rain/snow, temperature, ozone, etc.)
- Robust cast-iron construction material EN-GJL-200, to DIN EN 1253-2
- High discharge rate of up to 7.7 l/s to BS EN 12056-3:2000
- Secure clamping ring with 6nr M12 stainless steel threaded rods
- Available in sizes DN 100 (110mm), DN 150 (160mm)
- Impact and shock resistant
- Low noise
- Includes Dome Grate / Leaf Guard
- Easy to install

Component Family



Leaf Guard
(included with Outlet)



Extension Unit
(for Built-up Warm Roofs)



Multi-lip angle sealing ring
(for backflow protection)



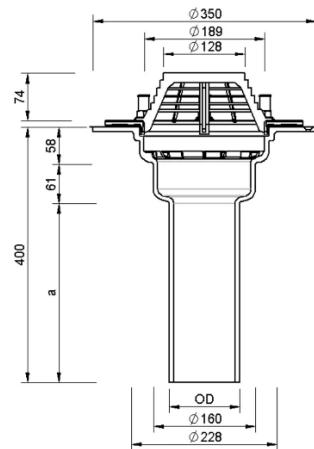
Vertical Outlet
(body with clamping ring)

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Technical Drawings

Vertical Rainwater Outlet

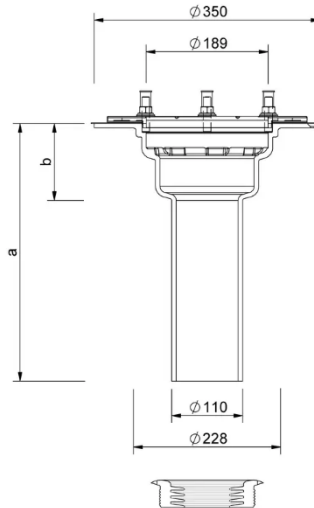


| SIZE DN | OD* | a (mm) | DECK OPENING (mm) | PRODUCT REF |
|---------|-----|--------|-------------------|-------------|
| 100 | 110 | 280 | | 40 04 99 |
| 150 | 160 | 343 | | 40 08 99 |

* OD = Outer Diameter (mm)

Extension Unit

(Built-up Warm Roofs)



| a (mm) | b (mm) | INSULATION THICKNESS RANGE (mm) | PRODUCT REF |
|--------|--------|---------------------------------|-------------|
| 400 | 119 | 80 - 300 | 40 27 99 |

Where a pre-fabricated **insulating body** is not used the surrounding insulation should be scalloped to support the outlet or extension unit.

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Optional Components



For a rapid and professional installation, a 450 x 450 x **120mm** pre-formed **Insulating Body for Extension Unit** manufactured from Cellular Glass Foam insulation which eliminates the need for mechanical fixings through the Extension Unit element on built-up warm roof constructions, increasing thermal efficiency and minimising potential cold-bridging. Thermal resistivity 0.025 W/mK, compressive strength 200kPa.

Product Ref. E40 90 06

To further eliminate thermal cold-bridging through a concrete slab, a pre-formed **Insulating Body** for the SitaMulti Rainwater Outlet can be incorporated into the concrete deck itself. Applications should be assessed and approved by the project structural engineer. See Radmat detail drawings for more information.

Product Ref. E40 90 03

For ceiling height adjustment to extend the insulating body when the concrete depth exceeds 120mm, compensating rings are available in 40 or 60mm thicknesses.

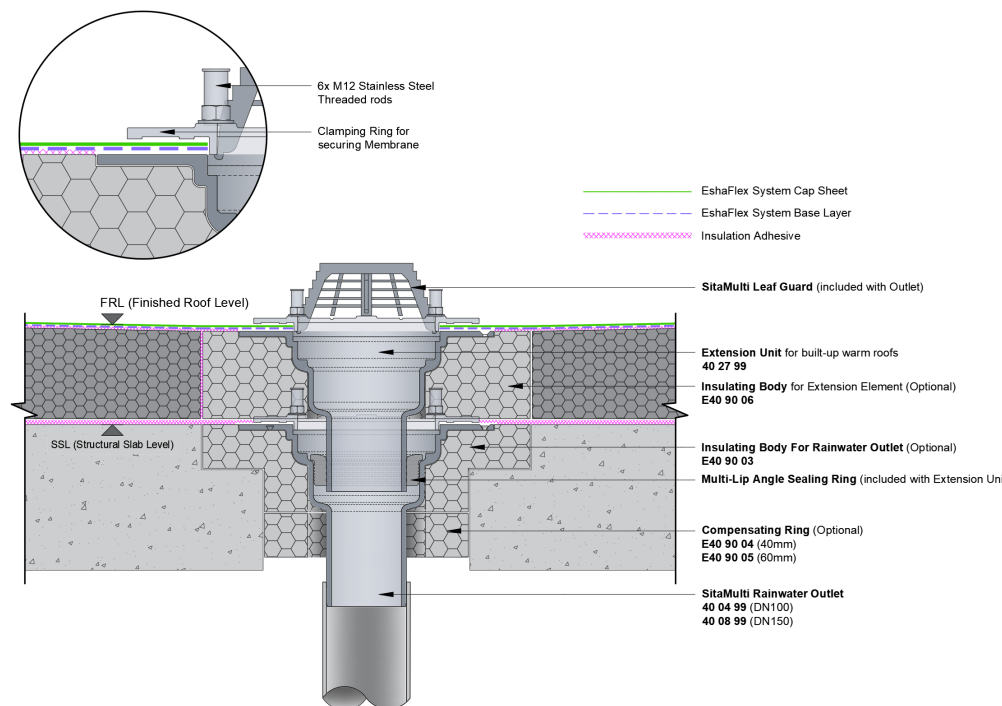
Product Ref. E40 90 04

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Connection to surrounding Pipework:

- uPVC "O" ring socketed soil grade pipe to BS 4514: 1983. Connection can be made directly, or with heat-shrink adaptors where necessary.
- Socketed and socket-less cast-iron pipework to BS 416:1973 and EN 887
Socketed pipework will require cold caulking or PVC to cast iron adaptors.
- Socket-less pipework can be connection using an appropriate mechanical coupling.
- HDPE, PP or Stainless Steel pipework with appropriate mechanical coupling.

Installed Example in EshaFlex 2-Layer System with FOAMGLAS® insulation



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Technical Data

| ELEMENT: CAST IRON VERTICAL RAINWATER OUTLET Characteristic | Value |
|--|---|
| Material | To DIN EN 1253-2 |
| Outlet Body | Cast Iron to EN-GJL-200 |
| Fire Classification (Outlet body) | Euroclass A1 non-combustible to BS EN 13501-1 |
| Temperature Resistance Minimum | -20°C |
| Colour and finish | Grey, Smooth |
| Depth of Unit including Spigot | 400 mm |
| Weight | 4.5 kg |
| Flow rate | 5.5 – 7.7 l/s* |

*Flow rate based on 35mm head of water using calculation methodologies from EN 12056-3:2000 including leaf grate.
For bespoke project-specific drainage calculations please contact Radmat Technical Department.

| ELEMENT: EXTENSION UNIT (ONLY FOR USE ON BUILT-UP INSULATED WARM ROOFS) Characteristic | Value |
|---|---|
| Material | To DIN EN 1253-2 |
| Extension Unit Body | Cast Iron to EN-GJL-200 |
| Fire Classification (Extension Unit Body) | Euroclass A1 non-combustible to BS EN 13501-1 |
| Temperature Resistance Minimum | -20°C |
| Minimum depth of surrounding insulation | 80 mm |
| Maximum depth of surrounding insulation | 300 mm |
| Weight | 4.5kg |
| Flow Rate | 7.7 l/s* (same as DN100 Vertical RWO) |

| ELEMENT: INSULATING BODY FOR EXTENSION UNIT (ONLY FOR USE ON BUILT-UP INSULATED WARM ROOFS) Characteristic | Value |
|---|---|
| Material | Cellular Glass Foam |
| Dimensions | 450 x 450mm |
| Depth | 120 mm |
| Fire Classification | Euroclass A1 non-combustible to BS EN 13501-1 |
| Thermal Conductivity | 0.046 W/mK |
| Compressive Strength | 500 kPa |
| Weight | 2.2 kg |

Rainwater Drainage systems should be designed and calculated in accordance with *EN 12056-3:2000 Gravity Drainage Systems & BS 6229:2018 Flat roofs with continuously supported flexible waterproof coverings – Code of practice*. It is the responsibility of the project engineer to ensure that these standards are achieved and maintained.

This information given in good faith and is based on the latest knowledge available to Radmat Building products Ltd. Whilst every effort has been made to ensure that the contents of the publication are current while going to press, customers are advised that products, techniques and codes of practice are under constant review and liable to change without notice.

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