



Aquaflow

Plastic Drainage Products

Underground Drainage Systems Guide

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 www.kalsiplastics.co.uk

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 Kalsi Plastics (UK) Ltd



BS EN 1401-1 BS4660.2000	110mm	160mm
HEPWORTH	✓	✓
OSMA/WAVIN	✓	✓
POLYPIPE	✓	✓
MARLEY	✓	✓
HUNTER	✓	✓
FLOPLAST	✓	✓
BRETT MARTIN	✓	✓

THE COMPANY

Kalsi Group is a leading manufacturer of high-quality, maintenance-free plastic building products, all expertly crafted at our advanced extrusion plant in Birmingham.

We cater to the full spectrum of the building industry, providing solutions for new builds and refurbishments across both commercial and domestic sectors. Our product range includes roofline systems, rainwater systems, underground systems, and soil & waste systems, all produced to existing British Standards using the latest in industry-leading machinery and tooling systems. We are proud to hold ISO 9001:2015, Kitemarks and BBA accreditation, underscoring our commitment to quality and excellence.

Aquacel, Aquaflow, and Aquawall products are readily available from a vast network of stockists throughout England, Scotland, Wales, and Ireland. Our dedicated and adaptable delivery service ensures that every order arrives punctually and in perfect condition. We are continually expanding our fleet of vehicles to guarantee even faster delivery times.

Our telephone sales department is highly valued for its friendly and responsive customer service. Trained to assist with ordering and delivery queries, our team is always on hand to provide expert advice. Additionally, our regional sales team, covering all parts of the UK and Ireland, is well-versed in our full product range and is equipped to offer professional guidance and support.

At Kalsi Group, we place a strong emphasis on innovation and customer support, continuously striving to meet and exceed our customers' expectation and satisfaction.



STORAGE AND TRANSPORTATION

Aquaflow underground pipes are carefully stored and delivered in bales within timber frame units. We recommend using a forklift or similar equipment to move bales of ninety pipes and storing them at a maximum height of 3 metres.

All fittings, whether part of the 110mm or 160mm underground system range, are supplied in carton boxes. These should be stored away from direct sunlight. If stored outdoors, the boxes should be opened to prevent temperature build-up and condensation.

APPLICATION

Aquaflow Underground Drainage Systems efficiently manage wastewater and surface water, with installation depths of up to 10 metres. These systems are designed to protect buildings from water damage, are durable and easy to maintain, and help prevent local flooding by controlling water flow.

MANUFACTURING PROCESS

Aquaflow drainage pipes and the majority of our fittings are manufactured from high-quality Polyvinyl Chloride (PVCu). Our inspection chambers and gully grids are made from robust Polypropylene.

COLOURS

Colours: All underground pipes and fittings are produced in terracotta brown unless specified otherwise in the product guide.



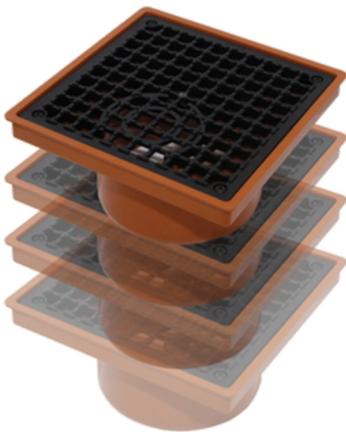
INSPECTION CHAMBERS

Aquaflow offers 320mm and 470mm Inspection Chambers, suitable for depths of up to 600mm and 1200mm respectively. For compliance with Building Regulations 2000 Approved Document H (Drainage & Waste Disposal), a 350mm reducing ring is required for depths exceeding 1200mm, up to a maximum of 3000mm. Our inspection chambers are BBA certified, ensuring the highest standards of quality and reliability.

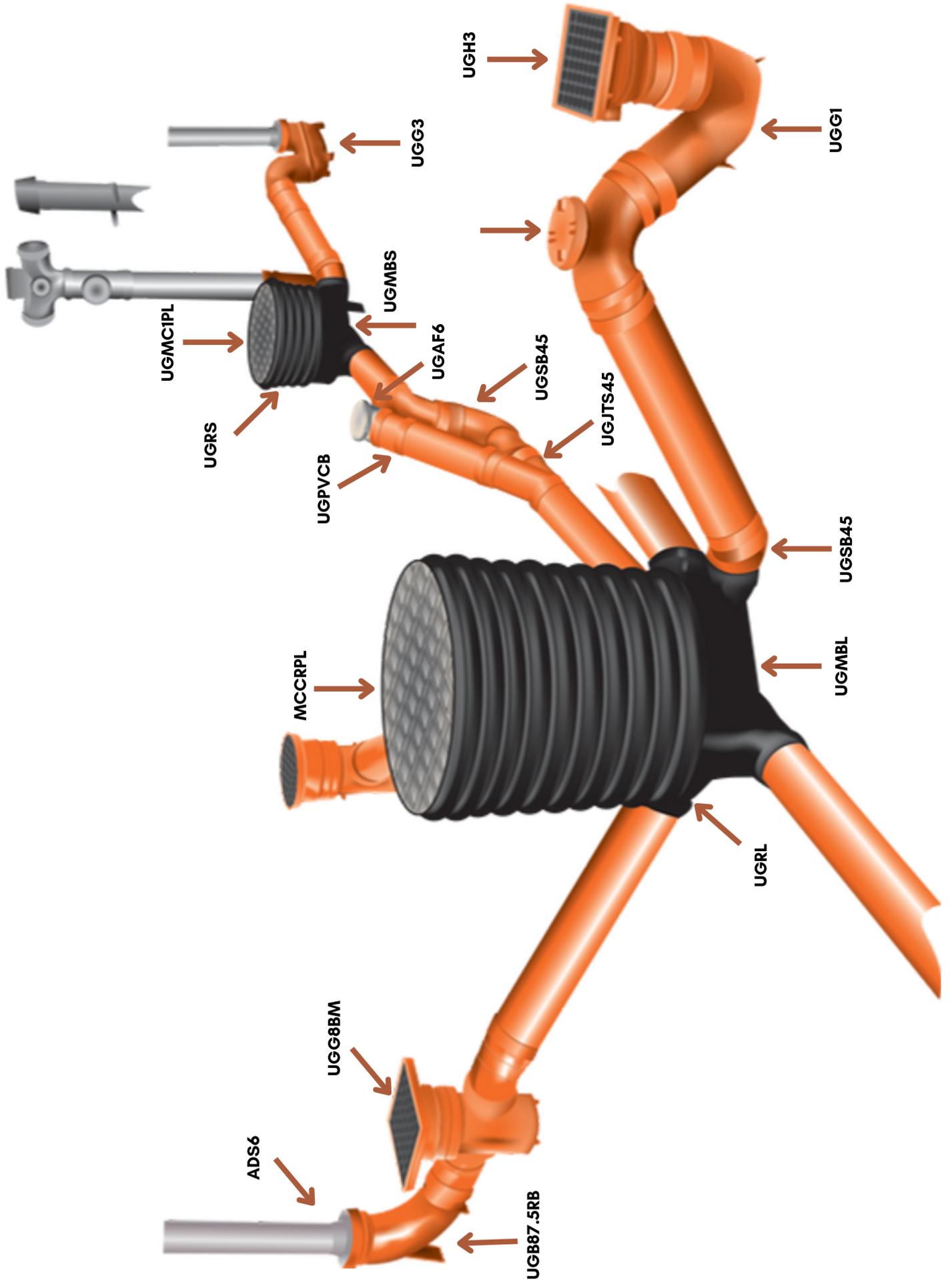


PVCu BACK INLET BOTTLE GULLY

Our durable back inlet bottle gully features a square or circular grid top, is easy to clean, and allows for height adjustments of up to 80mm. The addition of 160mm piping provides increased height for a desired level.



UNDERGROUND DRAINAGE SYSTEM



110MM UNDERGROUND DRAINAGE SYSTEM

Aquaflow's 110mm Underground Pipe system offers reliable connections with advanced manufacturing techniques.

A plastic circular insert holds the rubber seal in place during transit, ensuring secure jointing. All fittings are designed with seal and snap technology, eliminating sharp edges for easy installation.

WHY CHOOSE 110MM UNDERGROUND DRAINAGE SYSTEM?

1. Effective wastewater and foul discharge drainage.
2. Strong, durable, and lightweight for easier installation.
3. Suitable for extreme temperatures.
4. Push-fit joint with 'cap and seal' system for leak-proof connections.
5. Extensive range of fittings compatible with Aquaflow Soil & Waste Systems.



160MM UNDERGROUND DRAINAGE SYSTEM

The system consist of secure connections with advanced manufacturing techniques. Plastic insert holds the rubber seal in place during transit for tight joints. Fittings feature 'cap and seal' technology for easy installation.

WHY CHOOSE 160MM UNDERGROUND DRAINAGE SYSTEM?

1. Reliable drainage for wastewater and foul discharge.
2. Engineered for strength and durability, yet lightweight.
3. Resilient to extreme weather conditions.
4. Push-fit joint with 'cap and seal' system.
5. Extensive range of fittings compatible with Aquaflow Soil & Waste Systems.
6. Easy installation and maintenance with long-lasting performance.



TRENCH DETAIL & BACKFILL MATERIAL

Trenching should be 300mm wider than the pipe diameter. Residual material can be used to form the 'pipe bed' and as side or backfill. Additional backfill materials such as pea shingle should be used in accordance with BS5955 Part 6: Appendix A. Once 300mm of material has been replaced, the surface can be reinstated.

ADAPTORS

Aquaflow underground systems are compatible with a wide range of adaptors for connecting rainwater downpipes, waste systems, and other materials like cast iron or supersleve.

TESTING

All testing is carried out in accordance with relevant standards, including Building Regulations Approved Document H, BS EN 752: 1997, and BS EN 1610: 1998. Reference should also be made to BS EN 12056 for internal drainage.

PIPE JOINTING PREPARATION

Before cutting pipes, ensure they are sloped and free from residual material.

RING SEAL JOINTS

Aquaflow ring seal joints serve as both a seal and expansion joint. Ensure all sockets are dry, clean, and properly lubricated for secure connections.

ACCESS AND RODDING POINTS

Access is vital for drainage efficiency. Rodding points should be enclosed in concrete to provide support and prevent them from being lost at ground level.

INSTALLATION GUIDE

For detailed installation instructions, please refer to the guide available on our website at www.kalsiplastics.co.uk under 'Underground Systems' on the products page.



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