



SOIL & WASTE
SYSTEMS

Aquaflow
Plastic Drainage Products

KALSI GROUP





THE COMPANY

Kalsi Group manufactures high quality maintenance-free plastic building products at its manufacturing and extrusion plant in Birmingham.

It supplies all markets from new build to refurbishment.



An extensive range of rainwater, underground, soil and waste systems and PVC-UE cellular foam building products are produced to British Standards and above using the latest machinery and tooling. The company also holds ISO 9001:2008 Quality Management System and BBA accreditation is achieved.

All Kalsi Group products are easily available from a network of stockists throughout the UK and Ireland.

A dedicated and flexible delivery fleet guarantees every item arrives on time and in pristine condition – catering for all customers, from the single stockist to multi-branch operations.

Our highly efficient telephone sales department is friendly and responsive. All are extensively trained and can provide assistance and advice on all Kalsi Group products.

Ongoing commitment to product innovation and support is at the core of the Group's philosophy as it strives to continually meet and exceed customer expectations.

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APPLICATION

Kalsi Aquaflow Soil and Waste Systems consist of extruded pipe sections, injection moulded fittings and traps to efficiently convey sanitary waste from all types of building. Offering a comprehensive range of systems in a range of sizes and colours.

The components in these systems enable the construction of Soil and Waste installations complying with the requirements of BS EN 12056-2:2000 and manufactured to the EN 1329-1 Building Regulations.

There are complementary Kalsi Aquaflow Underground Drain and Sewer systems to provide a complete solution for all drainage requirements.



COMPOSITIONS

Extruded pipe sections and injection moulded fittings are made from PVCu, PVC and polypropylene compounds complying with the material requirements of the relevant British Standards.

They contain the necessary processing additives, stabilisers and pigments to give products with excellent appearance, durability and performance.

COLOURS

Above Ground products are offered in a range of colours. Please reference our product guide for further information.



110/160MM PUSHFIT SOIL SYSTEM

- 110/160mm Ring Seal Waste System
- Strong, durable, light weight robust product
- Available in Black, Grey and White

Pushfit systems offering an effective solution to discharge waste water and foul drainage. The sealing rings are contained by a hydraulically pressed snap cap for reassurance when fitting.



110MM PUSHFIT MANIFOLD

- For up to four connections
- Helps prevent cross flow design problems
- Simple push-fit connection for all waste pipes

The Kalsi Soil Waste Manifold is designed to be positioned neatly in the corner of a room for connection to internal or external soil stack.



110MM SOLVENT SOIL SYSTEM

- 110mm Solvent Soil Waste System
- Strong, durable, light weight robust product
- Available in Black, Grey and White

A comprehensive range of attractive and durable fittings. Installations are assisted by the introduction of 0-45 and 0-90 adjustable solvent weld bends.



PUSHFIT WASTE SYSTEM

- Available in Black, Grey and White

Made in polypropylene, this quick and easy to install waste system incorporating a push-fit ring seal system is available in 32mm and 40mm sizes. No solvent welding required. Installation is enhanced by the use of a soluble lubricant.



SOIL AND WASTE INSTALLATION DIAGRAM



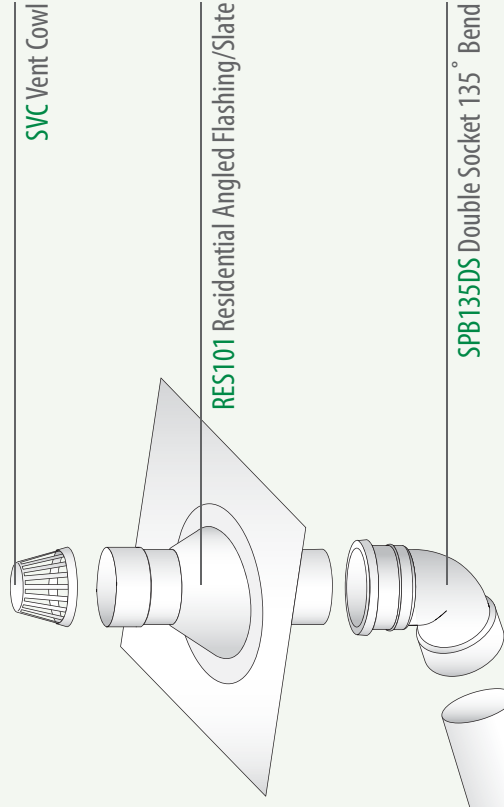
SPCD
Pipe Bracket



SAFP
Access Pipe



SPB135DS
Double Socket
135° Bend



SVC Vent Cowl

RES101 Residential Angled Flashing/Slate

SPB135DS Double Socket 135° Bend

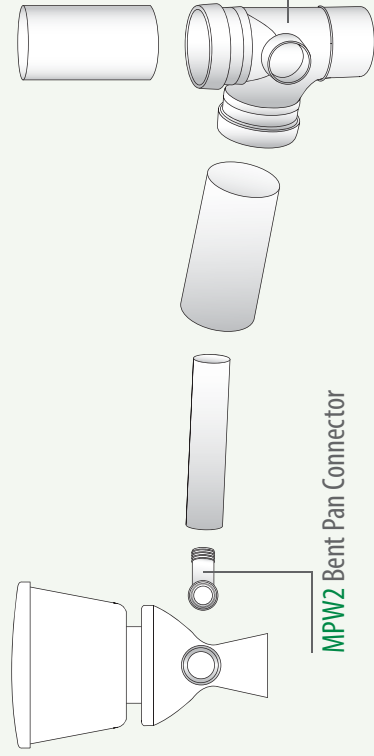


WA1.5
Pushfit 40mm
Rubber Waste Adaptor



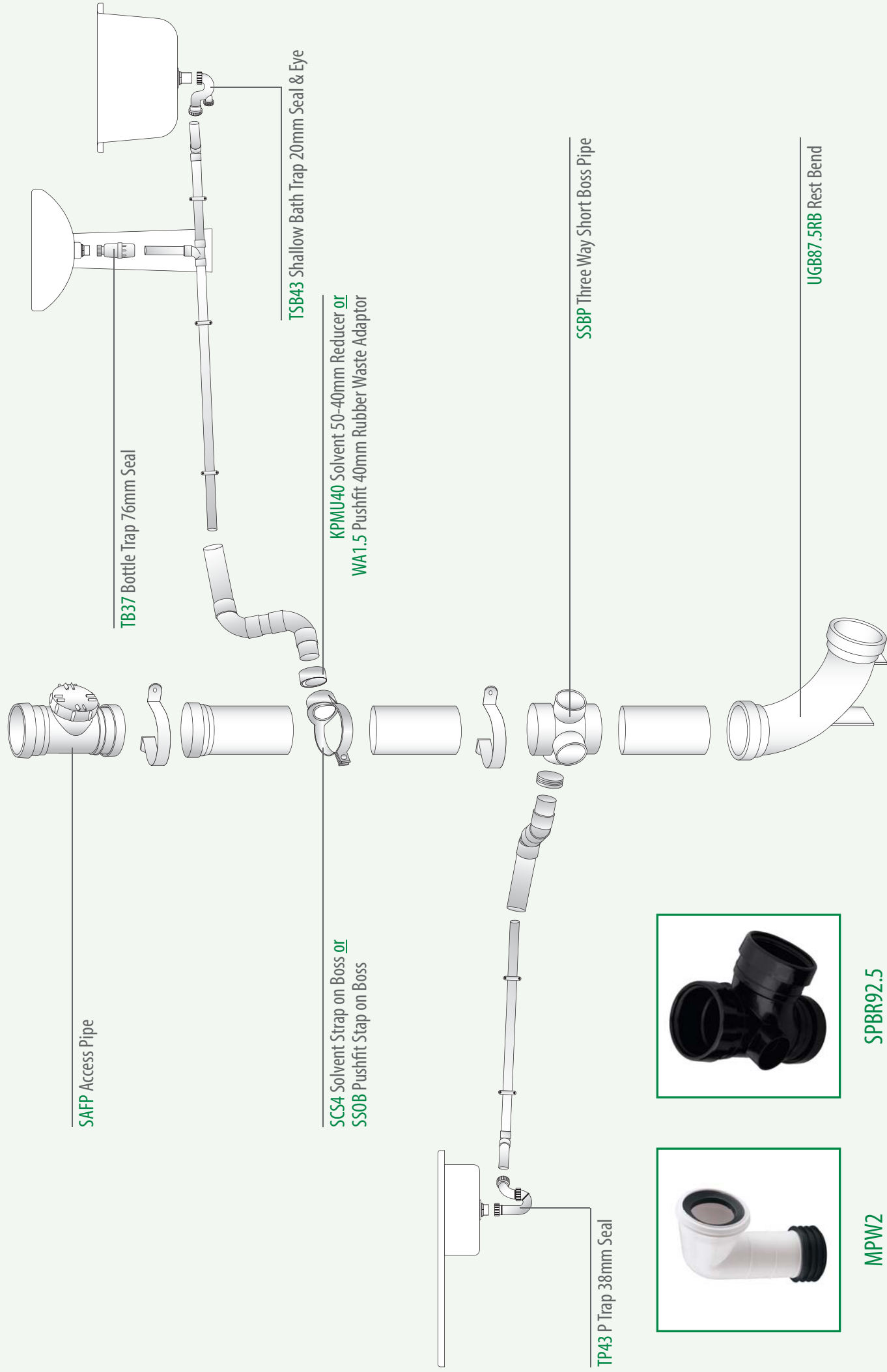
TSB43
Shallow Bath Trap
20mm Seal & Eye

SPCD Pipe Bracket



MPW2 Bent Pan Connector

SPBR92.5 Double Socket 92.5° Branch



SAFP Access Pipe

TB37 Bottle Trap 76mm Seal

TSB43 Shallow Bath Trap 20mm Seal & Eye

SCS4 Solvent Strap on Boss or
SSOB Pushfit Strap on Boss

KPMU40 Solvent 50-40mm Reducer or
WA1.5 Pushfit 40mm Rubber Waste Adaptor

SSBP Three Way Short Boss Pipe

UGB87.5RB Rest Bend

TP43 P Trap 38mm Seal



SPBR92.5
Double Socket
92.5° Branch



MPW2
Bent Pan Connector

SOLVENT WASTE SYSTEM

- Available in Black, Grey and White

A light in weight yet strong and cost effective option, the Kalsi Solvent Waste System is available in 32mm, 40mm and 50mm sizes with an extensive range of fittings to meet all installation requirements. Joint using Solvent cement, SC125 or SC250.



MULTIPLEX WASTE SYSTEM

- Available in White only
- 32mm and 40mm

Ideal for the connection of copper and plastic pipe work and in particular for joining solvent weld pipe work to push fit.



OVERFLOW WASTE SYSTEM

- Available in Black, Grey and White

A 22mm solvent waste overflow system in PVC-U with an extensive range of fittings to meet all installation requirements. Used for overflow discharge or condensate.



TRAPS

- Available in White only

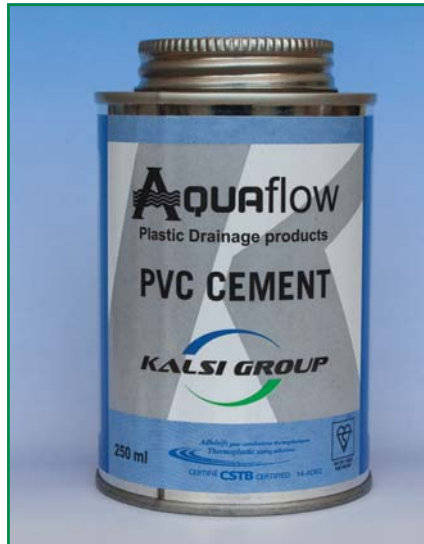
Traps are manufactured to BS EN 274 in white high temperature polypropylene with compression type outlets that fit plastic and copper waste pipes 32mm/1 1/4" and 40mm/1 1/2". Available individually packaged with a header card for display boards at trade counters and/or loose bulk box.



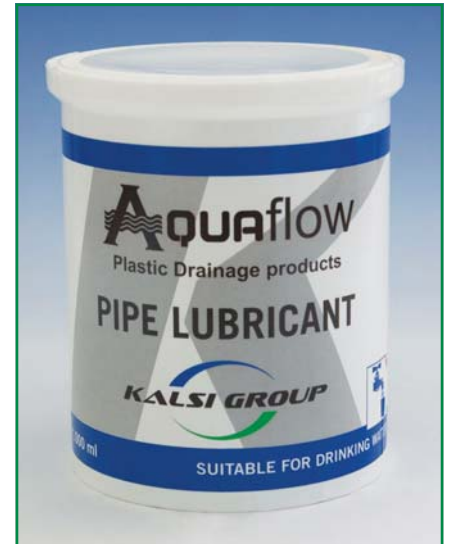
ANCILLARIES



125ml Solvent Cement
SC125



250ml Solvent Cement
SC250



1 Litre Soluble Lubricant
KPSL1000

STANDARDS AND ACCREDITATIONS

Kalsi Aquaflow Soil and Waste Systems satisfy the requirements of the following:

- The Building Regulations 2002.
- Building Standards (Scotland) Regulations 1990.
- Building Regulations (Northern Ireland) 1990.

Kalsi Aquaflow Soil and Waste Systems are manufactured, as applicable, to the following British Standards:

- BS EN 274: Specification for plastic waste traps.
- BS 4514 / EN 1329-1: Specification for unplasticised PVC soil and ventilating pipes, fittings and accessories.
- BS EN 1451:2000 Plastic piping systems for soil and waste discharge within the building structure – polypropylene.
- BS 5255:1989: Specification for thermoplastics waste pipe and fittings.

All components are manufactured under a quality management system registered under British Standards BS EN ISO 9001:2008.



MATERIAL PROPERTIES

Material properties determine the correct selection of a system. The main materials used are PVCu, modified PVCu and polypropylene. Polyethylene is used in the manufacture of snap caps to retain the ring seals. Unplasticised polyvinyl chloride, PVCu, is a most versatile material.

Many processing methods can be used, it can be coloured, is light in weight, and has good chemical resistance, fire performance and weather ability. PVCu can be modified to increase its resistance to higher temperature discharges. Polypropylene has excellent chemical resistance and can tolerate higher temperatures.

SERVICE TEMPERATURE

PVCu has a softening point in excess of 70°C, and PVCu soil stacks can cope with short intermittent discharges with temperatures up to 90°C. Modified unplasticised polyvinyl chloride, MuPVC, has a softening point above 90°C so, in addition to the normal properties of PVCu, it can also cope with higher temperature discharges over prolonged periods.

The higher softening point of polypropylene, above 140°C, means it can cope with high temperature discharges, such as boiling water, and it is the most appropriate material for the manufacture of traps.

UV LIGHT RESISTANCE

While polypropylene has good chemical resistance, resistance to UV light is poor. Exterior applications require protection using paint or enclosures. PVCu can be formulated to give excellent resistance

to UV light, and so is suitable for exterior uses, requiring no additional protection.

FIRE PERFORMANCE

PVCu in almost all forms has superior fire performance to most plastic materials: this makes it a suitable choice for indoor applications as it

will require no additional fire protection. Polypropylene has poor fire performance, interior applications require protection.

THERMAL EXPANSION

PVCu has a coefficient of expansion of approximately 0.06mm/m/°C. Consequently a 2m length of soil or waste pipe will expand by 2.4mm for a 20°C rise in temperature. This expansion is taken into

consideration in the design of systems and components, and must be accommodated when installing. A similar allowance should be made when installing polypropylene and MuPVC systems.

BIOLOGICAL AND CHEMICAL RESISTANCE

Polluted industrial atmospheres will not affect Kalsi Aquaflow Soil and Waste Systems. PVC and polypropylene are rot and vermin proof and resistant to most commonly occurring chemicals, so it will not be affected by domestic effluents.

Notable exceptions however are solvents, including those incorporated in most timber preservatives. Kalsi Aquaflow Soil and Waste systems should not be used for the disposal of industrial chemical wastes.

TIMBER PRESERVATIVES

Before any component is fixed to a timber surface treated with wood preservative, the preservative must be dried thoroughly.

The solvent content of wet preservatives can attack and embrittle plastic materials.



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ISO: 9001/2008

