



Technical Details and Index

# Technical Details

## Installation Guidelines

- **Building Regulations** require that all points of discharge into a drainage system should be fitted with a trap (e.g. a water seal trap) to prevent foul air from the system entering the building. Under working and test conditions traps should retain a minimum seal of 25mm of water

## Installation Requirements

All traps, waste pipe, waste fittings and soil fittings when installed in buildings should be installed in compliance with:

- Building Regulations 2000 (2002 edition) Approved Document H England and Wales
- The Building Standards (Scotland) Regulations 1990 (as amended)
- The Building Regulations (Northern Ireland) 2000 Alternatively the relevant recommendations of BS EN 12056-2:2000 should be followed

All traps should be accessible and provided with an adequate facility for cleansing, for example, traps are capable of being readily removed or dismantled. In general a trap which is not an integral part of an appliance should be attached to, and be immediately beneath, its outlet. However, traps that are not connected to the appliance should be as close as possible. There should be no more than one trap on the discharge pipework from any appliance.

## Trap Seals

- Traps with outlets for pipes up to and including DN50 should have a minimum water seal of 50mm on baths and showers, provided they are fitted with flush-grated wastes without plugs on spray-tap basins; 75mm trap seals should be used with all other appliances
- Traps with outlets for pipes over DN50 should have a minimum water seal of 50mm
- Traps used on appliances with flat bottoms (trailing waste discharge) and discharging to a gully with a grating may have a reduced water seal of not less than 38mm

M<sup>c</sup>Alpine manufacture 19mm water seal traps to meet market demand for replacement traps or for situations where space is limited. These traps should **not** be used in situations where a minimum 50mm water seal trap is required or where the waste pipe is connected to a soil stack.

- **The table opposite is an extract for BS EN 12056-2:2000 Gravity Drainage Systems Inside Buildings**

## Notes relating to table opposite

- (1) Steeper gradients permitted if pipe is less than maximum permitted length
- (2) If length is greater than 3m noisy discharge may result with an increased risk of blockage
- (3) Should be as short as possible to limit problems with deposition
- (4) Sharp throated bends should be avoided
- (5) For slab urinal for up to 7 persons. Longer slabs to have more than one outlet
- (6) Swept - entry branches serving WC's
- (7) Includes small potato-peeling machines
- (8) Tubular not bottle or resealing traps
- (9) Spray tap basin shall have flush-grated wastes without plugs



Code ASA10

Appliance	Diameter (DN)	Min. Trap Seal Depth (mm)	Max. Length (L) of Pipe from Trap Outlet to Stack (m)	Pipe Gradient (%)	Max. Number of Bends (no)	Max. Drop (m)
Washbasin, Bidet (30mm diameter trap)	30	75	1.7	2.2 <sup>(1)</sup>	0	0
Washbasin, Bidet (30mm diameter trap)	30	75	1.1	4.4 <sup>(1)</sup>	0	0
Washbasin, Bidet (30mm diameter trap)	30	75	0.7	8.7 <sup>(1)</sup>	0	0
Washbasin, Bidet (30mm diameter trap)	40	75	3.0	1.8 to 4.4	2	0
Shower, Bath	40	50	No Limit <sup>(2)</sup>	1.8 to 9.0	No Limit	1.5
Bowl Urinal	40	75	3.0 <sup>(3)</sup>	1.8 to 9.0	No Limit <sup>(4)</sup>	1.5
Trough Urinal	50	75	3.0 <sup>(3)</sup>	1.8 to 9.0	No Limit <sup>(4)</sup>	1.5
Slab Urinal <sup>(5)</sup>	60	50	3.0 <sup>(3)</sup>	1.8 to 9.0	No Limit <sup>(4)</sup>	1.5
Kitchen Sink (40mm diameter trap)	40	75	No Limit <sup>(2)</sup>	1.8 to 9.0	No Limit	1.5
Household Dishwasher or Washing Machine	40	75	3.0	1.8 to 4.4	No Limit	1.5
WC with Outlet up to 80mm <sup>(6)</sup>	75	50	No Limit	1.8 Min.	No Limit <sup>(4)</sup>	1.5
WC with Outlet greater than 80mm <sup>(6)</sup>	100	50	No Limit	1.8 Min.	No Limit <sup>(4)</sup>	1.5
Food Waste Disposal <sup>(7)</sup>	40 Min.	75 <sup>(8)</sup>	3.0 <sup>(3)</sup>	13.5 Min.	No Limit <sup>(4)</sup>	1.5
Sanitary Towel Disposal Unit	40 Min.	75 <sup>(8)</sup>	3.0 <sup>(3)</sup>	5.4 Min.	No Limit <sup>(4)</sup>	1.5
Floor Drain	50	50	No Limit <sup>(3)</sup>	1.8 Min.	No Limit	1.5
Floor Drain	70	50	No Limit <sup>(3)</sup>	1.8 Min.	No Limit	1.5
Floor Drain	100	50	No Limit <sup>(3)</sup>	1.8 Min.	No Limit	1.5
4 Basins	50	75	4.0	1.8 to 4.4	0	0
Bowl Urinals <sup>(8)</sup>	50	75	No Limit <sup>(3)</sup>	1.8 to 9.0	No Limit <sup>(4)</sup>	1.5
Maximum of 8 WC's <sup>(6)</sup>	100	50	15.0	0.9 to 9.0	2	1.5
Up to 5 Spray Tap Basins <sup>(9)</sup>	30 Max.	50	4.5 <sup>(3)</sup>	1.8 to 4.4	No Limit <sup>(4)</sup>	0

# Technical Details

## Installation Information

Most individual products are supplied with detailed installation instructions. The following is general information.

### Trap Inlets

When connecting the trap Inlet to the waste outlet, it is important to ensure that a proper 'seating' is obtained and it is therefore recommended that the waste outlet used be to British Standard or equivalent, otherwise difficulty may be experienced in obtaining a water tight joint. All traps are supplied complete with inlet washers.

### Trap Outlets and Multifit Fittings see Page 2

For use with plastic pipes to BS EN 1451-1:2000 and BS EN 1329-1:2000, copper pipe (metric or imperial) and lead pipe. Fit as follows:

- Chamfer inside of pipe, if required to remove any burr or to enable plastic pipe to be eased over internal sleeve
- Remove nut, plastic friction washer and rubber olive from trap or fitting
- Push nut, plastic friction washer and rubber olive over pipe
- Push pipe over internal sleeve and into trap or fitting
- Connect nut and hand tighten

If a plastic pipe is undersize, or out of shape, the end may require to be warmed to enable it to be pushed over the internal sleeve and into the trap or fitting.

### Universal Trap Outlets and Fittings

Fit as Multifit but internal sleeve not applicable

### Surefit Fittings see Page 59

To BS EN 1329-1:2000

For use with M<sup>C</sup>Alpine HDPE waste pipe only. Fit as follows:

- Chamfer inside of pipe, if required to remove burr
- Remove nut and rubber washer from fitting
- Push nut and rubber washer over pipe

- Push pipe into socket
- Connect nut and hand tighten

### Pushfit Fittings see Page 67

For use with M<sup>C</sup>Alpine overflow pipe. Fit as follows:

- Gently warm end of pipe - say 25mm
- Push Fitting inside or outside of pipe dependent on type of fitting

### Pipe Clipping

It is of the utmost importance that plastic pipe be properly supported as recommended below:

		Waste (m)	Overflow (m)
Horizontal:	Every	0.5	0.5
Vertical:	Every	1.2	1.2





**Product Information****Traps and Waste Outlet Fittings see Sections 1 and 7**

All traps, waste outlets and overflows for kitchen sinks, shower trays, wash basins, bidets and baths meet the dimensional, performance, materials and marking requirements of EN 274-1:2002.

**Bath Fillers see Page 20**

M<sup>C</sup>Alpine bath fillers have the following flow rates:

0.5 bar pressure produces 33 litres per minute

1.0 bar pressure produces 44 litres per minute

2.0 bar pressure produces 57 litres per minute

**Condensate Products see Pages 16-17**

M<sup>C</sup>Alpine traps and fittings for connecting condensate discharge from condensing boilers to sanitary pipework meet the requirements of BS 6798:2009 and Building Regulations Approved Document H.

**Shower and Floor Gullies see Section 2**

Shower and floor gullies are manufactured to comply with EN 1253-2:2003.

**Surefit Waste System see Page 59**

Surefit waste system is manufactured to comply with BS EN 1329-1:2000.

**MACFIT WC Connectors see Pages 74-75**

MACFIT WC connectors are manufactured to comply with BS 5627:1984.

**Flexible WC Connectors see Pages 76-78**

Flexible WC connectors are manufactured to comply with German Standard DIN 1389:2001-05 and have LGA Approval, certificate number 7311072.

**Rigid WC Connectors see Pages 79-81**

Rigid WC connectors are manufactured to comply with BS 5627:1984 and German Standard DIN 1389-2.

**Air Admittance Valves (Ventapipe) see Section 6**

Air admittance valves (Ventapipe) are manufactured to comply with BS EN 12380:2002 and have LGA Approval.

Code WC-CON8F18



Code VP50P

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