

Unit 209: Drainage systems

Outcome 1 (part 3)

The requirements of drainage systems

Components

Component parts

Branch connector
(single socket)



Bend
(double socket)



Coupler
(single socket)



Components

Component parts

110mm plastic soil pipe
(single socket)



45° bend
(single socket)



110mm socket plug



Components

Component parts

110mm pipe clip



Access pipe
(single socket)



Gullet trap and grid



Components

Component parts

Flexible pan connector



90° pan connector



Swan neck pan connector



Components

Component parts

Straight pan connector



Weathering collar



Long radius bend



Components

Component parts

Flexible adaptor



Silicone grease



Universal adaptor



Clipping distances

Clipping distances

All pipework must be adequately supported – whether vertical or horizontal.

Plastic pipework expands and contracts with changes in temperature – whether ambient temperature or from the nature of the discharge through the pipework.

Expansion joints must therefore be provided to accommodate such thermal movement.

Clipping distances

Clipping distances

Pipe size	Vertical	Horizontal
32mm	1.2m	0.5m
40mm	1.2m	0.5m
50mm	1.2m	0.9m
110mm	2.0m	1.0m

Clipping distances

When installing any soil stack or waste system, you would generally look at the **building plans** to see the position in which they will be installed.

The side or rear elevations would show where the soil stack would be installed if it was positioned outside.

Generally the soil stack is outside, and is located to the side or rear of the property.

Hazards

Hazards

Whilst working on any soil or waste, plumbers need to protect themselves against several health issues.

Weil's disease: caused by an infection of bacteria from water that has been infected by rat urine. The infection passes to humans via the infected water coming into contact with open cuts, eyes, mouth or nose.

Rubber gauntlets should be worn if working on used soil stacks and WCs.



Hazards

Hazards

Hepatitis: a viral infection of the liver caused by coming into contact with human waste, followed by poor personal hygiene. More commonly caught abroad. Make sure you have the hepatitis A vaccination.

Dermatitis: skin inflammation that can be caused by an irritant being in contact with the skin, which then can cause an allergic reaction. Make sure you use barrier cream, wear gloves and read the COSHH data sheets.

Hazards

Hazards

If installing or removing a cast iron soil stack, great care will have to be taken because of the weight of each section.

This affects the manual handling and also falling from heights – which would need to be written into the risk assessment of the job – and the subsequent choice of equipment used.