

# Polypipe

## Introduction to CONDENSATE Drainage Products



FOR FURTHER INFORMATION  
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## Introduction to Condensate Products

- From 2005, most new home boiler installations in the UK will be condensing boilers. Condensing boilers produce acidic condensate.
  - The Condensate will need to be disposed of, either through the domestic waste drainage system, or via a specific soakaway.
  - As the volumes of condensate are small (typically 5 litres per day),
- standard Polypipe 21.5mm overflow pipe can normally be utilised.
- The Polypipe range of condensate Drainage Products are specifically designed for use in taking the discharge of condensate from a Condensing Boiler into a soil stack, waste pipe, external drain, rainwater hopper or an external soakaway.



### Condensate Soakaway

The Polypipe Soakaway comprises a 110mm body, and rubber adaptors to connect to either 21.5mm overflow pipe or 32mm waste pipe. 12mm holes are pre-drilled into one side to allow the condensate to flow away from the property. On installation, the Soakaway is filled with and set into limestone chippings to neutralise the acidic condensate.



### Condensate Check Valve

The compact Condensate Non-Return Check Valve is used downstream to prevent condensate returning back to the boiler, a spring loaded non-return valve facilitates this process. The check valve comes with a clear sight glass for ease of inspection and a compression inlet and solvent weld outlet connection for 21.5mm overflow pipework. The acceptability of check valves should be checked with Local Authority Building Control Depts.



### Condensate Waste Saddle

The Overflow to Waste Saddle takes the form of a clamp system incorporating a compression inlet for connection to the overflow pipe and four stainless steel clamp bolts. One size fits both 40mm and with the special rubber adaptor sleeve provided, 32mm pipe. Compatible with push fit and solvent weld waste systems. A 22mm (7/8") hole is drilled into the waste pipe before the saddle is fitted.



### Condensate Strap Boss

The Strap On Boss Adaptor allows connection to the soil stack without any protrusion into the bore, which could otherwise lead to blockage. A 58mm, 2 1/4" hole is drilled before the Boss is fitted. Polypipe solvent cement is used to seal the strap boss to the PVCu soil stack.





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## REGULATIONS - APPROVED Document H to the Building Regulations 2000

Clause 1.14: Condensate drainage from boilers may be connected to sanitary pipework (with pipework of minimum diameter 22 mm) through a 75 mm seal trap. If the trap is external to the boiler, an air gap should be provided between the boiler and the trap.

The connection should preferably be made to an internal stack. If the connection is made to a branch pipe, the connection should be made downstream of any sink waste connection.

The pipework should be made from materials resistant to a pH of 6.5 or lower and the installation should be in accordance with BS 6798.

Clause 1.14 specifies that a minimum pipework diameter of 22mm should be used. 22mm PEX and PB pipes have an internal diameter of approximately 18mm. A 21.5mm overflow pipe has an internal diameter of approximately 19.5mm and hence exceeds the bore and hence flow requirement specified in this clause.

## GUIDE TO THE CONDENSING BOILER INSTALLATION ASSESSMENT PROCEDURE FOR DWELLINGS (ODPM) REF: 04 BD 03021

**Clause 9:** Connections to dispose of condensate are typically:

- To an internal plastic soil stack
- To an internal plastic waste pipe
- To an external drain or gully
- To a plastic rainwater hopper if part of a combined system
- To a purpose made soakaway

An external soakaway need only be considered if no suitable drain point is available.

Soakaways should be as near as possible to the boiler but at least 1m from the building foundations and clear of any other services. The external pipework must be kept to a minimum and must not exceed 3m in length

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and should be insulated to minimize the risk of freezing.

Additional waste traps may be necessary, dependent upon the recommendations of the boiler manufacturer. If the trap in the boiler has a seal depth greater than 75mm and the manufacturer recommends that direct connection is permissible without an air gap, then the condensate may be run directly into a waste pipe or soil stack using the appropriate saddle connectors. If the trap in the boiler is less than 75mm seal depth or an air gap is recommended, then an additional condensate trap must be used before connecting to a soil stack, waste pipe, gully or rainwater hopper (75mm seal depth for waste/soil connections).

The fall on the condensate pipe must be at least 2 degrees away from the boiler, bends should be kept to a minimum and fixings should be every 0.5mm horizontal and 1m for vertical sections.

Overflow pipe is suitable for internal connections and for external connection where the boiler is fitted with a syphonic trap which gives intermittent discharge but if a syphonic trap is not fitted within the boiler, it is recommended that pipe which is run externally should be 32mm waste pipe to BS EN 1566/1329, (MUPVC) BS EN 1451 (PP) or BS EN 1455 (ABS) to reduce the risk of freezing.

**Connections to waste pipe or soil stacks** should follow the recommendations of the Code of Practice BS EN 12056-2: 2000.

**Soakaway connection:** Where it is not possible to connect directly to a soil stack, waste pipe or gully hopper, an external soakaway may be utilised. The preformed plastic unit is buried in the ground, with the holes facing away from the house and filled with limestone chippings. Soakaways may only be used where the ground is permeable and guidance on this is given in Approved Document H, part H3 of the Building Regulations. If there is any possibility of freezing, then 32mm waste pipe should be used rather than overflow pipe.

