

Technical Bulletin

Installation Advice: Flow restrictors at hot water outlets

Minimum flow rates for Combi Boilers

Some basin, sink and bath taps now have in-built flow restrictors to ensure they comply with NHBC guidance which limits flow to hot water outlets as follows:

- Basin, Sink & shower - 6 l/min
- Bath - 9 l/min

Flow restrictors can be fitted upstream of any hot water outlet which is serviced by a Worcester Greenstar Combi boiler, however in order to ensure end user comfort, we would not recommend restricting the flow any further than the rates advised by the NHBC.

All Worcester Combi boilers have a flow restrictor fitted to ensure that a 40°C temperature rise will always be achieved on the hot water; the maximum flow rate will vary across the range of appliances depending on appliance output.

The flow rate required to initiate a hot water demand on a Greenstar boiler varies across the range of appliances between 2 & 3 l/min. The boilers will typically end a hot water demand at approximately 1 l/min below the rate at which they started the demand.

If the incoming mains water temperature is particularly warm, and the hot water temperature set point is reduced on the boiler control; very low flow rates for long water draw offs may cause combi boilers to cycle on and off, which will result in temperature fluctuations at the outlet.

Fitting restricted taps or flow restrictors at hot water outlets will ensure better distribution of available flow from the boiler between outlets, meaning that individual outlets should not be “starved” of water.

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