

Effective cleaning of drains and sewers

The BPF Pipes Group welcomed the publication of the '*Manual of Drain and Sewer Cleaning*' published in 2020 by WRc and the National Association of Drainage Contractors. The Manual recognises the skill required to undertake effective sewer cleaning and blockage clearance and the impact that poor workmanship can have on the drain and sewer network. This can lead to ineffective cleaning work, damage to the infrastructure, flooding of the customer's property and discharge of sewage to the environment.

The Manual builds on the '*Sewer Jetting Code of Practice*' which was first published in 1997. That Code provided operational guidelines to ensure that whilst the sewer is cleaned or unblocked effectively using high pressure water jetting, damage does not occur to the fabric of the sewer. The new Manual extends this best practice to rodding and rotary drain cleaning.

Members of the BPF Pipes Group, together with manufacturers of clay and concrete pipes, supported collaborative research work by the water companies to develop a test method and evaluate product performance.

Type testing and a minimum performance requirement for structured-wall plastic pipes was built into the UK water industry specification and manufacturers have therefore been able to evaluate and demonstrate resistance to high pressure water jetting against this published method for more than 20 years.

The BPF Pipes Group are committed to supporting UK water companies in maintaining the integrity of its assets and levels of service to its customers and the environment and would like the stress that:

- The UK drainage and sewerage network has developed over many years and is a mixture of pipe materials, jointing systems and ancillaries such as chambers and manholes, in various states of structural condition from newly installed to badly deformed.
- Whilst the structural condition of any part of the network may be assessed, classified and recorded, it is not always possible to identify the materials used for the pipe, joints or subsequent replacement or repair work.
- The Manual of Drain and Sewer Cleaning, in line with the earlier Sewer Jetting Code of Practice, recommends maximum working pressures taking into account both the network materials and structure condition.
- Where the materials are known and the structural condition is good (category 1 or 2), the working pressure can be taken up to a maximum for the drain / sewer material. For plastic pipes, this is 180 bar (2600psi).

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- Where the pipe materials are unknown (or a mixture of materials along the pipeline to be cleaned), or where sewers and drains in structural condition 3 (fractures, some deformation or bricks displaced), the maximum recommended working pressure is lowered to 130 bar (1900psi).
- The Manual recommends that during cleaning operations, the nozzle is kept moving, avoiding leaving the nozzle in one place for more than 60 seconds. The performance test used for evaluation of plastic pipes is necessarily more onerous than operational best practice. During the test, a pencil jet nozzle is held stationary close to the pipe wall and the water jet held at test pressure for a period of 120 seconds.
- Above all, high pressure sewer jetting should only ever be carried out by competent and trained operatives to minimize risk to staff, general public and the network.