



Assessment of the Groundbreaker Water Management System - schedule

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1. Scope

To assess the performance and properties of the Groundbreaker Water Management System developed by Steve Leigh & Associates Ltd. (SL&A), 13 Farriers Road, Stowmarket, Suffolk, IP14 2NS

Groundbreaker is designed for bringing water supplies to a new or existing building. It includes a stop tap, non-return valve and a concentric water meter installation point and is a development of the original Groundbreaker, which was WRc Approved™ in December 2000 (Certificate PT/123/1400).

The unit is designed for installation above ground, mounted on the wall of a property. The outer shell is made from UV stabilised, impact resistant, recycled polypropylene and the insulation contains 50% recycled polystyrene. The unit is compatible with all currently available service pipe materials up to 32mm diameter although some pipe materials/sizes may require an adaptor fitting.

2. Assessment schedule

This Assessment Schedule has taken into account the relevant requirements of the following national specifications:

WIS 4-37-01 for boundary boxes;
WIS 4-23-04 for underground stop valves.

The assessment comprises the following:

2.1 Technical audit of production facilities, including review of type and quality control testing and test results.

2.2 Review of test data and witnessing testing where necessary

2.3 Audit of written procedures for installation of the unit.

3. Review of properties

Markings:

Manufacturer's identification;
Batch identification that provides complete traceability of the components in contact with potable water; the shell of Groundbreaker also has batch identification, Trade Mark "Groundbreaker" and the word "Water" on the door.

The unit:

The manifold assembly, including the shut-off and Watts Ocean non-return valves, is manufactured by Severn Trent Metering Services Ltd (part ref BA0079). It is manufactured from WRAS approved acetal copolymer, listing number 0407524.

The shell of Groundbreaker is made in accordance with SL&A's detail & specification – Drawing No. 1893/C/1 and other images.

The service connections are end load resistant "Philmac" type, supplied by GPS systems.

The Groundbreaker is WRAS approved, listing number 0601303.

Properties

The Groundbreaker Water Management system is assessed



against the requirements WIS 4-37-01. In particular the following properties are tested.

Test	WIS 4-37-01 Method
Freezing	Appendix B
Hydraulic performance	Appendix C
Hydraulic pressure	Appendix E

4. Review of procedures

Quality control, as it applies to:

- incoming materials;
- control of production

Installation procedures and available guidance to users.

QA on incoming recycled PP to ensure consistency.

5. Reference documents

- 1) WIS 4-23-04: Issue 1:
Specification for underground stop valves, including spherical valves, for potable water services for nominal sizes up to and including 63 and nominal pressures of 10bar minimum and made principally of metal or thermoplastics. WRc, March 1991.
- 2) WIS 4-37-01: Issue 1:
Specification for boundary boxes for metering and control of domestic and small industrial water services. WRc, November 1990, incorporating October 1993 Amendment.