

PT/429/0818 (August 2018)

**Final draft Assessment Schedule for GRP
wet wells as manufactured by SPEL
Products**



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1. SCOPE

This schedule specifies the requirements for the SPEL glass reinforced plastic (GRP) wet well for diameters from 1800mm to 4000mm, buried at depths of up to 6 metres.

It is not applicable to any pipework, fittings, pumps and associated switchgear used with any wet well.

2. PRODUCT DESCRIPTION

2.1 Introduction

The SPEL GRP wet well is cylindrical and prefabricated by the chop hoop filament wound process. The wet well is manufactured as one piece for both horizontal and vertical non-pressure applications.

SPEL GRP wet wells are designed to comply with Sewers for Adoption for both sewage and grey water applications.

SPEL GRP wet wells can be fitted with pipework, pumps and tested prior to installation as a working unit though this does not form part of this approval. This minimises the need for confined space trained staff during the installation.

2.2 Product standard

The following relevant standard was identified for GRP wet wells:

- BS 4994⁽¹⁾

2.3 Approval History

The Broadway GRP prefabricated pumping station was WRc Approved in 1999 (PT/76/99), the certification was not renewed and lapsed in 2004.

SPEL provided the housing for the Broadway GRP prefabricated pumping station though this is the first approval of the product under the SPEL name.

3. TESTING & REQUIREMENTS

3.1 General

The SPEL GRP wet well shall comply with the requirements of BS 4994.

3.2 Mechanical resistance

When subjected to the external water pressure test in accordance with WIS 4-04-02⁽²⁾, clause 12.1.3, there shall be no visible distortion or damage.

3.3 Self-Cleaning

The SPEL GRP wet well shall meet the requirements of WIS 4-04-02, clause 12.1.9, at the end of test the depth of the sediment in the wet well shall be less than 10% of the difference between the pump unit inlet and the base of the wet well.

3.4 Leak Tightness Testing

When subjected to the internal water pressure test in accordance with WIS 4-04-02, clause 12.1.2, there shall be no visible leakage.

When subjected to the external water pressure test in accordance with WIS 4-04-02, clause 12.1.3, there shall be no visible leakage.

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4. MANUFACTURE

To ensure the quality and performance of the SPEL GRP wet well, the manufacturing process shall include appropriate systems for the:

- Specification of component materials;
- Verification component materials received are to specification;
- Handling and storage of all component materials and finished units; and
- Fabrication and quality control of workmanship.

The production of the SPEL GRP wet well and related quality control procedures shall comply with requirements to ensure the stated performance of the product is reliably achieved.

5. INSTALLATION

When installed in accordance with the installation documentation⁽³⁾, the SPEL GRP wet well shall be reasonably expected to perform as described.

6. APPROVAL

The SPEL GRP Wet Well has been audited and successfully met all the requirements stated within this assessment schedule.

Signed:

A handwritten signature in black ink that reads 'A Russell'.

Valid until 22nd August 2023

7. REFERENCES

- 1) BS 4994:1987 Specification for Design and construction of vessels and tanks in reinforced plastics.
- 2) WIS 4-04-02 Specification for Package Pumping Stations intended to serve more than one property.
- 3) Installation instructions, SPEL package pumping stations V-series, Rev 12.10.