

1. SCOPE

This schedule specifies the requirements for the DERAGGER+ wastewater pump controller, as manufactured by Clearwater Controls Ltd.

It is applicable to the use of the product in a control panel containing interface relays and other switchgear.

2. PRODUCT DESCRIPTION

2.1 Introduction

The DERAGGER+ anti-ragging technology monitors pumps in real time to identify and eliminate blockages before they form, meaning pumps no longer need to be lifted and cleaned.

The system comprises an electronic pump manager. It is connected between a pumping station controller and a pump starter relay and in parallel with the pump motor.

The system may be configured to provide full pump diagnostic information including individual phase voltage, current and power to Kw/Hrs, run time and a number of start counters.

2.2 Relevant Standards

The following standards of relevant content were identified for pumping station controllers:

- Sewers for Adoption 7th Edition⁽¹⁾
- Sewers for Scotland 3rd Edition⁽²⁾

2.3 Approval History

This is the first WRc Approved™ certification for the DERAGGER+ Pump Controller.

3. REQUIREMENTS AND TESTING

3.1 Type Testing

Evidence from independently run trials will be used to assess the performance of the DERAGGER+.

When installed across a representative sample of wastewater pumping stations the DERAGGER+ shall demonstrate a consistent reduction in the frequency of site visits to manually unblock the pump.

When installed across a representative sample of wastewater pumping stations the DERAGGER+ shall on average demonstrate energy savings of >15% where pumps have been recently manually cleaned. Where pumps have not been recently manually cleaned savings shall be greater.

The performance shall be considered with reference to pump condition, energy use and blockage history.

3.2 Manufacture

To ensure the quality and performance of the DERAGGER+, the manufacturing process shall include appropriate systems for the:

- Specification of component materials;
- verification that component materials received are to specification;
- handling and storage of all component materials;
- fabrication and quality of workmanship; and
- testing of units prior to dispatch.

The manufacture of the DERAGGER+ and related Quality Control procedures shall comply with requirements to ensure the

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**Assessment Schedule for the Functionality
of the DERAGGER+ Pump Controller as
manufactured by Clearwater Controls Ltd.**



independent certification of your products & services

stated performance of the product is reliably achieved.

3.3 Installation

Installation, in accordance with the installation documentation, shall be undertaken by appropriately trained personnel.

Health and safety considerations shall be addressed within the installation documentation.

4. APPROVAL

The DERAGGER+ has been audited and has successfully met all of the requirements stated within this assessment schedule.

A handwritten signature in black ink, appearing to be 'Samuel', written over a horizontal line.

5. REFERENCES

1. Sewers for Adoption 7th Edition, Water UK/WRc plc, 2012.
2. Sewers for Scotland 3rd Edition, 2015.