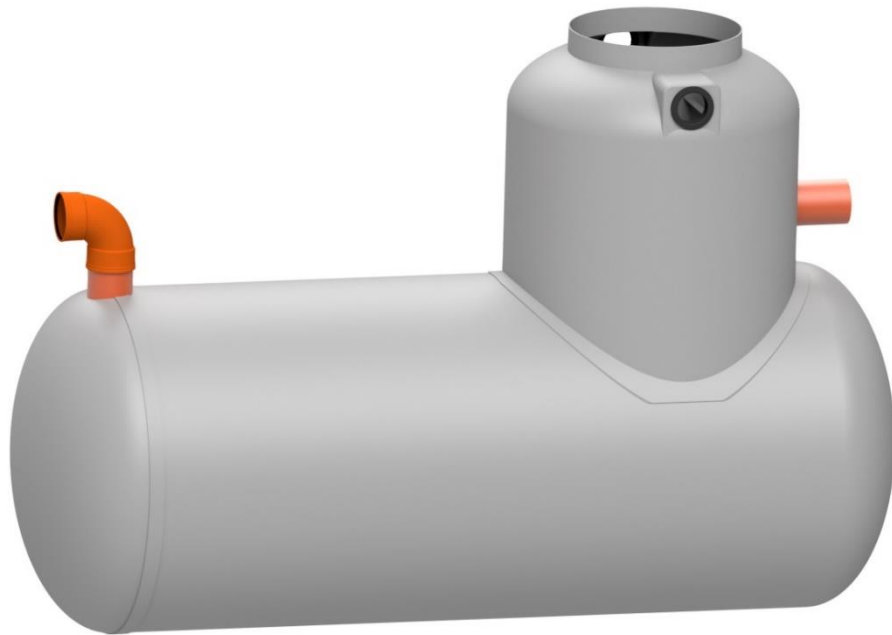


REWATEC™

CNSB Bypass Separators



Commissioning & Maintenance Manual

Rewatec CNSB Bypass Separators Class One & Class Two – BS EN 858

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**To Safeguard Warranty Please
Ensure You Are Using The Latest
Installation Manual.**

Introduction

The primary function of oil/water separators is to separate oil, petrol, diesel and other hydrocarbon contaminants from waste water and retain the separated liquids. These separated liquids must be removed regularly, using a licensed effluent disposal contractor (your contracted service provider), to ensure that the separator operates as efficiently as possible.

All Rewatec bypass separators include for silt storage and hydrocarbon separation within the unit.

The process of hydrocarbon separation is achieved by flow of the contaminated liquid through the coalescing filter, which is housed in the main body of the separator. The passage of hydrocarbons through the coalescing filter causes the formation of large hydrocarbon 'bubbles'. These 'bubbles' then 'break away' from the filter and rise to the top of the main chamber. The treated water outlet is from the base of the main chamber, hence causing the separated hydrocarbons to be retained within the unit until they are removed during maintenance.

REGULAR MAINTENANCE OF SEPARATOR EQUIPMENT WILL ENSURE IT OPERATES AS INTENDED WITH MINIMUM RISK OF POLLUTION TO THE ENVIRONMENT.

Maintenance Inspections

Separators are used in widely varying circumstances where some will require frequent maintenance and others will have substantially longer intervals before any maintenance (emptying) is required. However, for every separator regular maintenance inspections should be carried out to determine whether or not there is a need to remove the accumulated oil, petrol, diesel, etc., or sediment. The owner of the Rewatec bypass separator is responsible for its operation and ensuring that the effluent quality does not breach any Discharge Consent Standards. It is advisable to set up a 'Service Agreement' with an effluent disposal contractor who can provide 'automatic' and regular maintenance and advise you if any problems with the system occur. The owner is reminded that the existence of a 'Service Agreement' does not necessarily transfer responsibility for general maintenance which must be conducted in accordance with this guide.

The *Environment Agency** has determined that separators shall be inspected at least every six months to establish whether or not emptying is necessary, and a log shall be maintained. Additional equipment for separators provided by Premier Tech Aqua Ltd such as an Alarm System which will give warning of the accumulation of oil, petrol, diesel, etc., but should not be used to replace regular inspections.

To keep your Rewatec bypass separator in top condition, we recommend regular servicing by Premier Tech Water and Environment's service partners.

*"Use and Design of Oil Separators in Surface Water Drainage Systems: PPG3"

Maintenance Procedures

1.0 Health and Safety

Section 6(a) of the United Kingdom Health and Safety at Work Act 1974 requires manufacturers to advise their customers on the safety and handling precautions to be observed when installing, operating, maintaining and servicing their products.

The maintenance procedures described here should be read and fully understood by the operator (competant person) before commencing work. Appropriate personal protective equipment should be used (gloves, goggles, waterproof clothing etc.,) particularly when handling filters which have been in contact with oil and oily sediment.

Before any work commences always identify the separator and its associated manhole covers, and cone off or erect barriers around the entire area.

DO NOT ENTER THE TANK

2.0 Commissioning the Separator Following Installation

2.1 Sediment and other construction debris can accumulate in the separator during its installation and whilst associated works are in progress. If this has occurred, isolate the separator from the drainage system remove the sediment as follows.

2.2 Slowly lift out the coalescing filter assembly. This should be lifted at a rate of 20mm per second (1.2m per minute), until clear of the water, ensuring that most of the residual water is drained from the coalescing filter. This will reduce the weight of the assembly.

NOTE: This assembly could weigh up to 55kgs and should be handled by two persons unless a mechanical hoist (recommended) is being used.

2.3 Remove this coalescing filter pod assembly to a place of safe keeping.

2.4 Fill the separator with clean water up to the outlet invert level.

2.5 Slowly lower the filter assembly into the separator until it is firmly located inside the tank.

3.0 Maintenance

3.1 If, following maintenance inspections, the separator is found to be storing the maximum volume of oil, petrol, diesel etc., or the maximum volume of sediment, inform your licensed effluent disposal contractor who will arrange emptying. Before making arrangements, check that you are registered with the Environment Agency, as required under the new Hazardous Waste Regulations 2005, where hazardous waste producers must be registered before any waste can be removed.

The following are guidelines only for determining the maximum storage volumes of oil and sediment.

- a) Multiply the maximum flowrate for which the separator has been designed (l/sec) by 15. This will be the maximum storage volume of hydrocarbons in litres e.g. a CNSB15 separator is designed for a 15 l/sec flowrate, therefore, can store 225 litres.
- b) Where no specific sediment volumes have been determined for the separator, or where no sediment has been expected to accumulate in the system, the maximum stored depth of sediment should not exceed 20% of the depth of the separator barrel e.g. a 1.8m diameter separator should not store more than 360mm depth of sediment.

3.2 Apply the Health and Safety requirements detailed in Section 1 before commencing any work.

3.3 Isolate the separator from the drainage system either by closing closing pre-installed valves in the upstream and downstream manholes or by securely fitting proprietary pipeline stoppers.

3.4 Slowly lift out the coalescing filter pod assembly. This should be lifted at a rate of 20mm per second (1.2m per minute), until clear of the water, ensuring that most of the residual water is drained from the coalescing filter. This will also reduce the combined overall weight of the assembly.

NOTE: This assembly could weigh up to 55kgs and should be handled by two persons unless a mechanical hoist (recommended) is being used.

3.5 Remove the coalescing Filter Pod assembly to a place of safe keeping.

3.6 Using a licensed effluent disposal contractor (your contracted service provider) carry out the following:

Remove the oil, petrol, diesel etc., from the surface of the liquid, leaving as much of the cleaner water as possible in the separator. Remove the sediment from the bottom of the separator taking great care in and around the filter outlet housing on the base to ensure that it does not become damaged, again leaving as much of the cleaner water as possible in the separator

3.7 Move the filter pod assembly to a convenient position *upstream* of the separator so that any polluted water washed from the filter will be directed back to the separator.

Wash the filter using a low pressure hose. If the Coalescing Filter has become 'blinded' with sediment or it is too dirty to clean or has become damaged, replace it by contacting Pims (Service) Ltd. Tel: 0870 405 0902.

3.8 Fill the separator with clean water up to the outlet invert level

3.9 Slowly lower the filter pod assembly into the separator and push home to ensure it is fully seated and sealed.

3.10 Check that the Alarm probe has not been damaged and that the alarm system is working.

3.11 Replace the manhole covers and remove the cones and/or barriers from the worksite.

REMEMBER – if the alarm system activates due to the accumulation of oil, petrol, diesel etc., do not delay in contacting your licensed effluent disposal contractor.