



**Improved RGF Performance
through in-situ Chemical Rehabilitation
of Filter Media**



THE PROBLEM

Over the course of time sand filters become fouled with minerals and materials that are deposited by the raw water during the filtration process. The media within the bed can also become mixed therefore the desired layering of filter media is not being achieved.

These issues are generally combatted by regular back washing. However, after long periods in use the process can cease to be effective leading to the filter bed media becoming clogged together by the foreign materials. This can lead to a reduction in operational performance; filtered water output; increased maintenance; operational costs and product unit cost.



PRE TREATMENT



PRE TREATMENT



PRE/POST TREATMENT



PRE TREATMENT
COLLECTION MEDIA



POST TREATMENT
EFFECT ON CLEANING AND
LAYERING OF GRAIN MEDIA



DURING TREATMENT



POST TREATMENT

THE SOLUTION

EPSOLVE Cleaning & Rehabilitation Treatment

Chemical Cleaning & Disinfection of all Filter Internal Surfaces

Removal of longstanding build ups of Biofilm and mineral deposits, effectively cleaning, and disinfecting all surfaces within 20 minutes using our bespoke low pressure spray application.

Chemical Cleaning and Rehabilitation of filter media & nozzles

Using a mixture of our EPSolve range we create a customised treatment solution dependant on media strata and condition. Using existing infrastructure, we scour the beds ensuring partials are agitated & chemical penetration is achieved. Filters are then flushed clear using traditional backwash methods.

RESULTS & BENEFITS

Results -

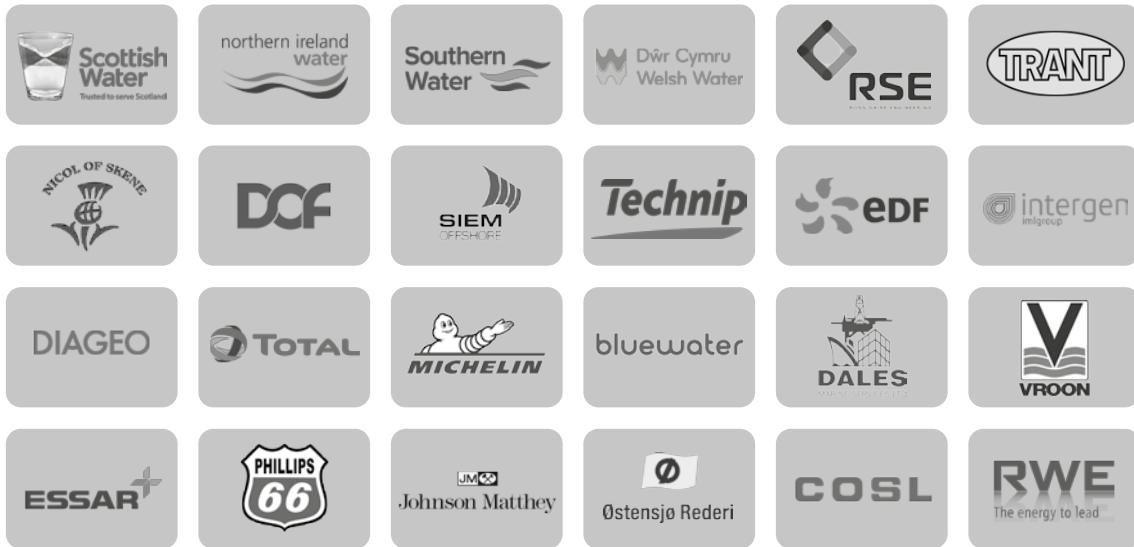
- Complete restoration of filter media and void ratio within the beds
- Returned to normal operational efficiency within 48 hours
- Effective disinfection of beds and flute structure
- Filters carry out efficient & uniform backwashing sequences post clean
- Reductions in the amount of filter media lost during daily cycles - *increasing lifetime of the assets*

Benefits -

- Cost Savings - *reduced costs in relation with maintenance*
- Time Savings - *chemical treatment completed within 24 hours*
- Health and Safety - *reduced risks compared to excavation and replanting of filter media*
- Environmental Impact - *chemicals remain bio-degradable and non-polluting to the aquatic environment*

All chemical treatment agents can be effectively neutralised and discharged in accordance with the client's discharge requirements.

REFERENCES



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