




PURESEP
Purification Filtration Separation
A member of The Amplio Group

FilterCare Services

Optimising your filtration performance





Our aim is to make your filtration process as **problem-free** as possible, working at its peak performance, aiding you in achieving the **competitive strength** and **profitability** that you desire.

Our **FilterCare** offering will ensure you:

- Prevent unscheduled downtime
- Optimise product, process and equipment performance
- Increase production
- Improve reliability
- Minimise costs
- Maximise efficiencies

Onsite Process Audit

Our FilterCare solution starts with an **onsite audit**, ensuring we fully understand your filtration process and the issues you face onsite. This is paramount in making **recommendations** that will ensure you achieve your end goals. Our fully trained **in-house engineers** are **experts** in the filtration and separation process, each has a vast amount of experience and resource to work from. Our engineers will come on site, at a time convenient to you and will undertake the process audit to establish what **issues** you are facing and what's causing them

Typical issues include:

- Plate & Frame filters suffering from **poor filter pack condition**, leading to powder

breakthrough and product losses due to edge leakage.

- Hydraulic system **failures** leaving equipment inoperable
- Electrical control circuit failures resulting in extended and **unplanned downtime**
- Inefficient production procedure: for example **incorrect dosing ratios** versus product flow-rate & filterability, this in turn increases effluent, downtime & decreases throughput.

The Audit Report

Following the onsite visit, our engineers complete a detailed and **substantial audit report**, highlighting the issues you are facing and make recommendations for work that needs to be undertaken to ensure you are operating at **optimum levels** and **capability**. A full cost, benefit analysis is undertaken and communicated to you to ensure you can assess where the priority issues are.

Recommendations helping you achieve optimum productivity

New requirements and the need for **greater production** means that the equipment and parts you invested in a few years ago may now be the source of a bottleneck or environmental problem. **Refurbishment** and **upgrade** of existing plant is a way of extending a systems life as well as being a **cost effective** alternative to improve the running costs, ease of operation and general **performance** of older equipment.



Upgrades, refurbishments, and overhauls

Puresep keep a supply of **reconditioned**, as new **orion filter plates, frames, seals, handles** and **shoes**. Ensuring these are correct and fitted correctly will improve the operation of the plant. We can also recondition existing packs.

Our engineers have the skills, knowledge and expertise to undertake **full hydraulic overhauls** as well as complete electrical upgrades to conform with latest legislation.

Puresep also have the skills, on Orion 60's, to change the **manual orion closure** mechanism to **fully automated**, using a hydraulic cylinder and power pack – giving the operator a simple on / off button. Thus **reducing** health and safety hazards onsite.

Expert Knowledge

We know that every site has **specific** production requirements, we **listen** to what these are and make **recommendations** to ensure your process is optimised

Your onsite operators are **fundamental** in ensuring you get the most out of your equipment. We can work with you to **tailor a training programme** to suit your needs thus reducing **downtime** and **costs**

Filtration Consumables, Spare Parts and Exchange Components

To ensure our **reliability** as your partner, we hold a number of **replacement parts** in stock, saving you a great deal of time and **expense**. These can be held on site or are ready for immediate dispatch from our warehouse, minimising downtime and guaranteeing a **high level of functionality** and **operational reliability**.

These items include:

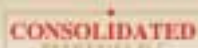
- o Orion Filter Sheets – all grades and sizes,
- o Keiselguhr powder – in various pack sizes
- o Machinery spare parts – shoes, handles, seals
- o Emergency exchange components – vital, frequently required reconditioned components are already preassembled and tested ready for quick and easy fitting by onsite trained staff

Puresep are proud to have FilterCare customers that include:

- Diageo Nigeria – three sites Aba, Benin, Lagos
- Diageo Ghana
- Consolidated Breweries, Nigeria
- Coors Brewery, UK – two sites
- John Smiths, UK
- Heineken, Manchester UK
- Bulmers, UK



DIAGEO



CONSOLIDATED
BREWRIES PLC



Coors



“Puresep have provided Diageo, Nigeria with technical support, on-site and via the phone on a number of occasions. Their knowledge, expertise and service has always been excellent. I am very impressed with the performance we receive from the filters they have installed in our breweries” Femi Jibodu, Engineering Manager, Guinness Nigeria, Benin Brewery.

“Puresep engineers are always a joy to work with, you know they won't leave site until the job is done” Philip English, Chief Engineer, John Smiths Brewery

Achimota Brewery, Diageo – Ghana Equipment – Seitz Orion 100

Reason for visit: Following audits and work carried out at other Diageo sites, the brewery in Ghana contacted Puresep to carry out a full quality audit to assess the current running condition of the filter and make recommendations on optimising production

Issues Highlighted

- Missing and worn shoes thus affecting the alignment of the pack – if left this would cause a decrease in productivity.
- The seals were showing sign of wear which would develop into leaks and large product loss.
- The pressure gauge assemblies have lost the indicator needles resulting in inaccurate pressure management .
- Issues with clutch assembly and locking motor – although a hydraulic strip down would be required to inspect. This resulted in the hydraulic seals being overworked – if these seals were to fail it would lead to massive product losses
- Electrical issues due to modification of control circuit – incorrect switches and no cable markers, no electrical drawings onsite or keys to unlock the old style pressure switches that were set at the wrong switching points for safe operation of the filter.

The Solution

- Following our recommendations the following work was carried out
- We supplied 13 pairs of reconditioned plates and frames. This gave the brewery the capability to increase the square meterage and so the filter can run faster for longer thus increasing volumes, throughput and flow rate.
- New seals, shoes and handles for all the elements were supplied thus reducing powder or product leakage or break through
- Electrical, mechanical and process overhauls – leaving all equipment running at its optimum capability
- Hydraulic overhaul -all seals were changed and the electrical control panel was replaced
- The old pressure switches were replaced for digital set point pressure switches

The Outcome:

A fully working, optimised sheet filter and production process, insuring against unplanned downtime or costly ongoing repairs and issues. The cost of undertaking the work was minimal in comparison to the cost of downtime and potential brewery closure.

Consolidated Breweries (Heineken)– Nigeria Equipment – Seitz Orion 100

Reason for visit: Consolidated Breweries asked Puresep to carry out an audit to assess the filter equipment condition, current process setup including potential optimization & feasibility of increasing filtration surface area and the implications to ancillary equipment.

Issues highlighted:

- Complete process data sheet for both the current filter set up and the increased number of elements post expansion
- Highlighted poor condition on certain filter elements along with remedial works
- Incorrect and worn seals causing excessive leakage.
- The two pressure gauge assemblies have blown causing bacterial issues
- Inability to alter dose rate on body feed equipment, leaving site overdosing reducing efficiencies.
- Evaluated all ancillary equipment including product pump, dosing pump and carbonation capacity

The Solution

- Extended the existing pack by supplying additional fully reconditioned plates and frames to increase product flow-rate and increase capacity
- Additional lower runner supports were supplied to the filter to ensure the additional elements didn't cause any machine damage
- Supplied and fitted a complete replacement hydraulic seal kit. All seals replaced – plate, frame, profile and end plate seals and carried out a seal service to prevent future break-down.
- A replacement pump unit was fitted to allow different products different dose rates allowing longer more efficient run lengths.
- Flow indication for beer pump flow-rate, including flap & scale plate. Sanitary design from carbon steel
- Supplied two new pressure gauge assemblies with stainless steel interfaces

The Result:

Consolidated Breweries were left with a fully working, efficient and optimised filter and production process where risk of costly breakdown, and thus brewery closure is significantly reduced.

For further information on our FilterCare service programs or any other enquiry contact us today

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