



Technology Services  
For Total Fluid Management

## Troubleshooting & Consulting Services

### Introduction

Filtration, separation and purification systems, when correctly designed and installed, should operate successfully without problems.

Even the best systems, however, may be affected by unpredictable events such as variations in process fluid quality or environmental factors—and often at the most critical time. Such events can result in costly down time or even loss of a product batch.

In addition, continuous improvement is a necessary requirement today, with increasing pressure on process efficiency and costs.

Whether your needs are for troubleshooting or process improvements, Pall Corporation's specialized advice and troubleshooting experts can bring significant benefits and cost savings.

### What Can Pall Offer?

A unique and cost-effective troubleshooting and consultancy service based on:

- More than fifty years experience in fluid processing and separation systems
- Broad industry and technical expertise unparalleled in the filtration and separations field

### How Can Pall Solve Your Problems?

Our specialists provide the best available professional advice to ensure a rapid and thorough evaluation.

We have state-of-the-art equipment to assist in problem solving and process monitoring.

Our worldwide laboratories offer analytical services for the widest range of fluids.



Our scientists/engineers can visit your site to evaluate your process in detail and to perform the studies locally.

We can develop with you intranet/internet systems to assist troubleshooting and information exchange.

### Benefits

- An approach to troubleshooting that is quick and cost effective
- A unique consultancy service that can achieve improved process efficiency and cost savings - Total Fluid Management.
- A global capability that ensures local support when you need it

### Typical Projects

- Plant filtration surveys
- Assess current filtration system effectiveness
- Scale up of processes
- Improve the cost effectiveness of the filtration system
- Investigation of non-integral systems
- Particle size analysis
- Evaluation of integrity test methodology
- Variable product analysis
- Evaluation of separation efficiency
- Reduction of contamination in final product
- Malfunction of control sensor in process
- Improvement of steam-in-place procedures
- EPA compliance
- Filter steaming process validation

## Facilities

### Laboratories

We can utilize thirty-five laboratories worldwide to help solve your problem.

### People

We have access to more than four hundred trained scientists and engineers within Pall as well as links with many other specialists in industry and academia.

### Equipment

Our equipment includes scanning electron microscopy, HPLC, mass spectrometry, TOC analysis, FTIR spectroscopy, GC, filterability kits, integrity test units customized for plant fluid monitoring systems... and much more.

### Databases

We maintain a comprehensive range of internal databases for troubleshooting. We also subscribe to external databases to ensure the use of the most current technologies in a timely fashion.

### Communications

We operate a Lotus Notes and Intranet system to ensure fast and efficient communications worldwide twenty-four hours a day.

## Documentation

Our findings and recommendations are fully documented in the form of a technical report. This report can be of special importance in regulatory audits and in the implementation process.

The report can be prepared to your specific format if required, to maintain consistency within your documentation.

Our aim is to ensure not only that your problems are resolved or processes improved, but that the results and suggested actions are fully documented and comply with appropriate manufacturing practices.

We can formally present the findings of the report in a meeting with you.

## Charges

Wherever possible, we provide a fixed price in advance. Where this is not possible, we will give an estimate to assist you with budgeting and cost control.

## What's the Next Step?

Simply contact your local Pall representative. They will discuss your specific requirements with you and forward your inquiry to Pall's technical specialists.



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