

Birchtech's Field Pilot System



➤ Rationale For Field Pilot Test For PFAS Remediation

A pilot test analyzes media for PFAS removal to validate treatment technologies under specific local water conditions, optimizes system design by determining the best media and operational parameters, and reduces financial risk by accurately forecasting media lifespan, replacement costs, and performance issues before a full-scale system is implemented. It also helps in complying with regulations by providing necessary data for final plans and ensuring the system can handle seasonal or fluctuating contaminants.

Birchtech's experienced team, subject matter experts, and customized pilot testing equipment provides customers with the analysis and data required to ensure regulatory compliance on a cost effective basis.

➤ Key Reasons For Pilot Testing



Validate Technology And Media:

- Pilot tests confirm if a specific treatment method, like granular activated carbon or ion exchange, is effective at removing PFAS from the particular water source being treated.



Optimize System Design:

- A pilot helps determine the most efficient design for a full-scale system, including the best media type, flow rate, and contact time to meet treatment goals at the lowest cost.



Ensure Regulatory Compliance:

- Pilot testing provides the performance data and analysis needed to gain approval for a permanent treatment system from regulatory bodies.
- It helps ensure the system can meet current and future regulatory standards for PFAS levels.



Reduce Financial Risk:

- **Forecast media lifespan:** A pilot study provides a more accurate prediction of how often media will need to be replaced, which is crucial for predicting long-term operating costs.
- **Avoid a poor technology choice:** Piloting ensures the correct technology is chosen for the specific water chemistry, preventing costly mistakes and frequent media changeouts from an inefficient system.



Identify Performance Challenges:

- **Track contaminant breakthrough:** The test monitors when contaminants start appearing in the treated water, which indicates the media's capacity.
- **Reveal unexpected issues:** A pilot run over several months can expose problems like media fouling or pressure changes that might not be apparent from limited lab tests or periodic water quality reports.

➤ Key Features

Full Column Compatible

Supports field testing for faster media performance assessments.

Lightweight & Portable

Easily transportable for flexible field or lab testing.

Customizable Pilot Test Columns

Designed to match anticipated full-scale vessels and operational flow rates.

Versatile Media Testing

Accommodates multiple filtration media types for comprehensive performance evaluation.

Optimized Column Design

Custom column diameters match any sized media while minimizing wall effects.



Integrated Digital Flow Totalizer

Ensures precise monitoring and control of flow rates.

Customizable Pretreatment Filtration

Configurable to match full-scale treatment conditions.

Engineered for Efficiency

Designed for easy column venting and backwashing.

Built in the U.S.A.

High-quality, American-made craftsmanship.

