

PORTABLE GROUNDWATER SAMPLING PUMP

The Most Reliable Portable Sampling Pump is PFC-Free

Sample Pro®

The Original PFC-Free Bladder Pump



The Sample Pro pump and tubing are and have always been PFC-Free*

The Sample Pro® Portable Pump, the first pump developed specifically to bring the advantages of low-flow sampling to sites requiring portable pumps, has been shown to be PFC-Free. Sample analysis by an independent laboratory showed no detections for 24 different perfluorinated compounds at detection limits much lower than the US EPA Health Advisory of 70 nanograms per liter (parts per trillion)*.

The Sample Pro Pump not only delivers consistent low-flow rates, it's easy to disassemble without tools, simple to clean and truly field rugged.

The Sample Pro portable pump combines the unparalleled sample accuracy and high reliability of a bladder pump in an easy-to-use design. It runs cool and can run dry without damage, and can be operated using any of QED's MicroPurge controller options - 12-volt integral compressor, a Honda-powered gasoline-driven compressor, an external

compressed air cylinder, or a lightweight backpack with integral CO₂ cylinder.

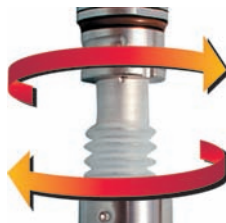
The Sample Pro pump's reliability and low maintenance make it more economical to use. Its twist-open design makes it easy to change the disposable bladder in seconds. The compact 14.75" length fits in a bucket for easy cleaning between uses.

Other innovations include interchangeable tubing connection options - conventional compression fittings or a "push to lock" head that eliminates fittings, perfect for use with disposable tubing. The Sample Pro pump's rugged, all-stainless construction will stand up to tough portable use. With thousands in service and nearly two decades of proven performance, the Sample Pro pump is the most reliable portable sampling pump ever made.

*See details on the testing procedure and results on the back page.



Ideal for PFC Sampling
Tested for purity



Simple to Service
Twist-open design with disposable bladders



Nearly Unbreakable
Stainless steel construction stands up to tough use



Innovative Environmental Products

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PFC-Free Groundwater Sampling



Specifications:

MATERIALS

Body	303 Stainless Steel
Inlet and Discharge Housing	303 Stainless Steel
Bladder	Polyethylene
O-Rings*	Viton® or Buna-N

DIMENSIONS

Diameter	1.75 in. (44.5 mm)
Length	14.75 in. (37.5 cm) w/ Push-In Fittings 16.5 in. (41.9 cm) w/ Compression Fittings 12.12 in. (30.8 cm) Bottom of pump to centerline of inlet
Weight	4.25 lbs. (1.93 kg)

FITTINGS (Stainless Steel Compression or Push-In Type)

Air	1/4 in. (6.4 mm) OD x 3/16 in. (4.7 mm) ID
Discharge	3/8 in. (9.5 mm) OD x 1/4 in. (6.4 mm) ID or 1/4 in. (6.4 mm) OD x 3/16 (4.7 mm) ID
Maximum Lift	250 ft. (76 m)
Flow Rates	3/8 in. OD Discharge Tubing, 10 ft. submergence: 1.6 Lpm @ 25 ft. 0.75 Lpm @ 100 ft. 1/4 in. OD Discharge Tubing, 10 ft. submergence: 1.25 Lpm @ 25 ft. 0.55 Lpm @ 100 ft.
Pump Volume	100 mL / 0.1 L / 0.026 gal. / 3.38 oz.

* For applications where materials specifications prohibit the use of Viton O-rings, QED has Buna-n (nitrile) O-ring kits for the Sample Pro portable bladder pump. The kit contains 10 complete sets of O-rings, and can be ordered using Part Number 38362-B.

Sampling Consultant's Kit

The Sample Pro Consultant's Kit includes accessories and supplies in a rugged case that also carries and protects the pump.

The kit includes all supplies, accessories, and replacement parts necessary to sample 10 wells, packed in a 9x9x20" heavy-duty structural foam tool box for easy portability on-site.



Testing of QED Sample Pro® for Perfluorinated Compounds

Introduction

Perfluorinated compounds (PFCs, also called perfluorinated alkylated substances or PFAS) have been identified as an emerging contaminant in ground water. Site owners and their environmental consultants are being tasked with sampling for the presence of these chemicals at extremely low concentration levels, down to several parts per trillion (or nanograms per liter). As part of this sampling, concerns have been raised that any sampling equipment that contains fluoropolymers of polytetrafluoroethylene (e.g., *Teflon®, such as PTFE, FEP and PFA) and fluoropolymer elastomers (e.g., Viton® or FKM) could leach PFCs into ground water samples. This has already led some users to exclude the use of any sampling equipment containing fluoropolymers or fluoroelastomers when sampling for PFCs.

QED conducted a test of the Sample Pro® 1.75" Portable Bladder Pump to determine if any PFCs would leach from materials in the pump. We also tested our commonly used sample tubing materials for the same purpose.

Test Method and Results

The Sample Pro 1.75-inch portable bladder pump was tested as a complete assembly (pump body, housing and check balls, polyethylene bladder and Viton O-rings). The test was conducted by soaking for 24 hours in a stainless steel test fixture (5 gallons / 20 liters volume) and collecting samples from the stand tube. The samples were analyzed for 24 different perfluorinated compounds using US EPA Method 537M, with method detection limits below 1 ng/L and reporting limits of 5 ng/L for most PFCs. In addition, QED also tested all of our twin-bonded tubing materials – polyethylene (PE), Teflon-lined PE and all Teflon tubing – by soaking each tubing material for 48-72 hours directly in sample bottles.

The results for the Sample Pro pump and all three tubing materials were non-detect for all 24 PFCs above the stated Method Detection Limits (MDLs). Based on this, our QED Sample Pro pump and any standard QED tubing should not contribute any PFCs to ground water samples taken with these products.

**Teflon® is a registered trademark of E. I. du Pont de Nemours and Company or its affiliates. It is used herein to describe a range of various fluorocarbon plastic resin formulations.*

For more detailed information visit:
www.qedenv.com/PFCtesting

