EDGE

CEM

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EDGE PFAS™ Automated Extraction System

Met- 00000000



Automates PFAS extraction.

EDGE PFAS is an automated extraction system that's faster than traditional PFAS solvent extraction methods. Extract a wide range of samples and sizes at least 3 times faster than other pressurized fluid extraction systems. This includes filtering, cooling, and washing. The EDGE PFAS has revolutionized the extraction process for sample preparation.



Fastest Technique Available



Q-Cup[®] Sample Holders are Easy to Assemble and Clean



Small Footprint



Q-Cup Sample Holder

A simple solution to a complicated problem.

The aluminum Q-Cup sample holder consists of three easy-to-assemble pieces:

- Q-Cup Cylinder
- Q-Disc®
- Threaded Bottom

The open top creates a dispersive effect, which promotes rapid extraction and filtration. The disposable Q-Discs completely filter your sample, prior to analysis. No additional steps are required. The simple design lends itself to easy cleaning.





EDGE Rack

Load samples in seconds.

Once the samples are placed in the Q-Cups, the Q-Cups are loaded into the rack, along with the centrifuge tubes. Next, the rack is loaded into the EDGE. The samples are then ready for the automated extraction process. "The advantage of the CEM EDGE PFAS system is that the extract is much clearer as it is filtered thus no clogging of SPE cartridges. Also with the CEM EDGE, no matrix effects are observed with different types of soil samples."

Dharmendr Matabudul Bureau Veritas — Canada

2-Mau

The patented Q-Cup technology offers simple and fast solvent extraction for a variety of sample types.



Environmental







Packaging Materials



Biosolids



Consumer Products



Waterproof Materials

Clean

PFAS-free environment.

Polypropylene tubing, centrifuge tubes, and a side enclosure ensure that samples can be tested, free from outside PFAS contamination. Q-Cups and Q-Discs have been tested to be PFAS free. EDGE PFAS delivers results you can trust.





Compact

Its small size is a big advantage.

The EDGE PFAS is only 14.25" wide. That's about the width of an analytical balance. You can have multiple EDGE PFAS systems placed side-by-side on one bench top.

Press play and walk away.

Program up to 12 samples, using the integrated touchscreen and intuitive software, and EDGE PFAS takes care of the rest. Every sample is run using either a preprogrammed One Touch® method, or with your own custom method.





Select a Method

After a rack of Q-Cups containing samples are loaded into the EDGE, simply select the proper method, program the number of samples, and hit "Start".

2 Autosampler Loads Sample

The Q-Cup is automatically loaded into the chamber by the autosampler. The pressure cap then creates a pressurized seal on the top of the Q-Cup.

3

Matrix is Extracted

Solvent is first added through the bottom to fill the gap between the chamber and Q-Cup, which aids in heat transfer. Then, solvent is added through the top of the Q-Cup to wet the sample. As the chamber walls are heated, the pressure in the gap increases. This overcomes the pressure inside the Q-Cup, forcing the solvent to disperse into the sample.

4 Extract is Collected

Once the sample reaches temperature, the solvent is dispensed through the Q-Disc, the cooling coil, and into a collection vial.

Accessories & Consumables



EDGE Rack

Removable rack that holds 12 Q-Cup sample holders and 12 Centrifuge tubes.

Centrifuge Tubes

 $50~{\rm mL}$ graduated polypropylene centrifuge tubes, pre-sterilized and capped. These tubes are compatible with the EDGE product line.



Q-Cup

The Q-Cup sample holder consists of 2 easy-to-assemble pieces for use in the EDGE. Thin-walled, aluminum design for optimum heat transfer and containment of up to 30 g of sample, or 40 mL of solvent.



Q-Disc

The Q-Discs are disposable filtration discs that provide final filtration of the extract, prior to analysis.



Q-Screen® Kit

Q-Screens are inserted on top of the sample within the Q-Cup. A tool (included) is used to insert the reusable stainless steel screens to keep the sample firmly packed within the Q-Cup.



You get more than an instrument.

When you own a CEM instrument, you have access to a whole team of scientists and engineers that are ready to support you. We are here to make sure you succeed.

Application Notes

Go to cem.com/edge/app-notes to download EDGE application notes.

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cem.com/edge/app-notes



Application Note The Extraction of PFAS Molecules from Spiked Soil

The Extraction of PFAS Molecules from Spiked Soil





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