



Advancing the power of SPE



**Smart
Prep[™]
Extractor**



Intelligent Automated
Solid Phase Extraction

SmartPrep Brochure



SmartPrep Extractor: Simplify Cartridge-based Solid Phase Extraction



Scalable and modular, link up to 8 SmartPrep Extractors and control them from one PC.



Unprecedented versatility

SmartPrep is the first ever automated, small-footprint extraction system designed specifically for scalable cartridge based SPE of a wide range of contaminants in clean aqueous or organic matrices. SmartPrep combines intelligence, versatility and ease of use, making automated SPE simple and affordable for method developers and sample prep laboratories. Using pre-loaded EPA or custom methods, SmartPrep can apply different methods to each sample or process up to 96 samples of the same method at once in batch mode. SmartPrep offers these additional features:

- Optional automatic rinse of sample containers
- Positive pressure via 6 mL syringe
- Modular and scalable—Up to eight modules from one PC
- Process up to 12 samples sequentially or 8 samples in parallel
- Small footprint—saves bench space
- Collect up to four fractions per sample
- Independent methods can be applied to each sample
- Batch mode sample processing
- Total walk-away automation

Only SmartPrep features the versatility to process individual samples with unique SPE methods while using batch-mode processing for high throughput sample prep applications.

SmartPrep Accessories make it easy to get more done in less time.



Sample bottle sip tubes (10" & 5")



Collection racks (20 mL & 40 mL)



Cartridge carousel insert adapters (1 mL & 3 mL)



In-line sample filter 3.1µm

Unique Advantages for Small Volume Sample Preparation

SmartPrep can process up to 12 samples per module. With a reagent mixing chamber, solid sample sip tubes and inline membrane filter to prevent clogging, SmartPrep has all the answers. A reagent manager assistant, liquid sensing and an optional bottle rinse for up to six samples ensures your work is done right while saving time and money.

- Uses much less solvent than a typical LLE/CLLE procedure
- Positive pressure fluid delivery equates to better chromatography
- Cartridges are inexpensive and readily available
- Produces no emulsions
- Processes small sample volumes (1.0 mL - 500 mL) very efficiently
- Cartridge sizes vary to optimize sample throughput (1,3, or 6 mL)
- Many EPA methods already developed and ready for use

Horizon offers the perfect solution for preparing any environmental water sample in the spectrum

Small, Clean Samples

Large Volume, Particulate Laden

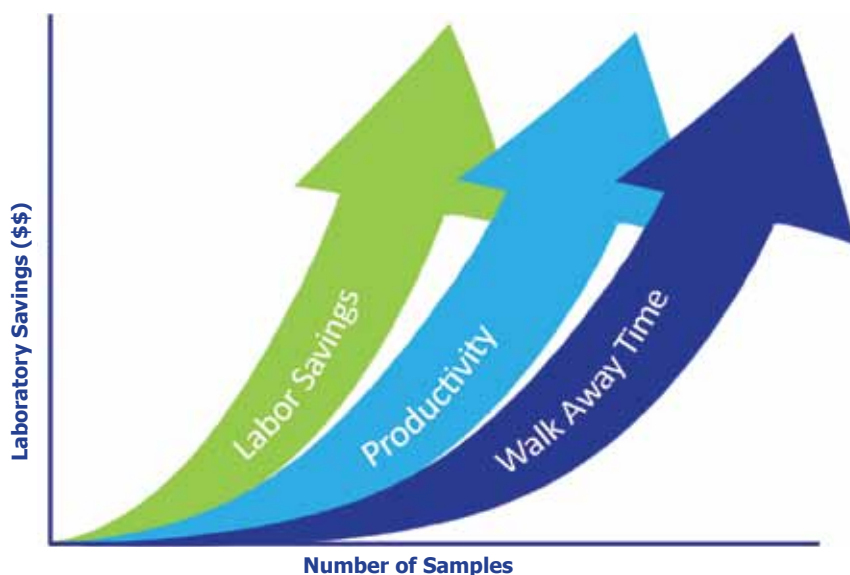


SmartPrep



SPE-DEX 4790

Benefits of automating with SmartPrep



With increasing sample throughput demands, automating any manual SPE process with the SmartPrep will drastically improve your lab's bottom line while minimizing labor expense, improving productivity and freeing up precious manpower.

Automate Your Manual SPE Methods Easily



SmartPrep is compatible with most kinds of commercially available 1, 3 and 6 mL cartridges and comes pre-loaded with proven methods—ideal for small clean samples. If you are manually performing SPE the SmartPrep can accommodate your needs while improving data consistency.

Intuitive Graphical Software Interface

The intuitive software designed by Horizon chemists specifically for the SmartPrep offers many features integral to speeding up the SPE process and handling multiple methods across large batches to keep your workstation runtime at peak performance.

Pre-program all 12 samples from a library of EPA Methods (each sample can have an individual method) and let SmartPrep run continuously. The software then offers dynamic, active status updates for each step of each module and alerts the operator of potential problems. A powerful feature allows programs to be run without connection to a PC.

Other Software Features Include:

- Automatic reports generated
- Password protection
- Diagnostic mode
- Reagent management
- Pause and resume methods easily
- Sample volume calculator



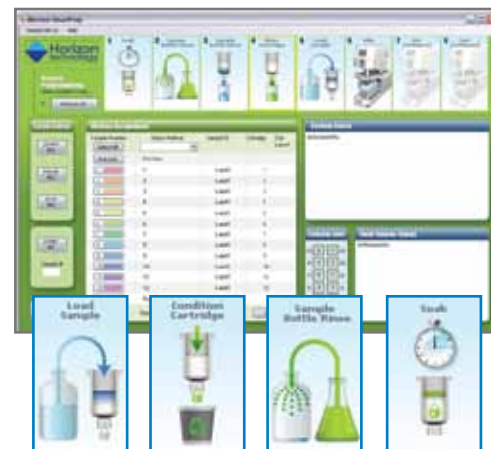
SmartPrep applications A new standard for water analysis:

Environmental

Dioxins and PCBs
Pesticides
Herbicides
UCMR 3

Life Sciences

Protein Purification
Drugs of Abuse
Personal Care Products
Forensics
Sample Clean Up



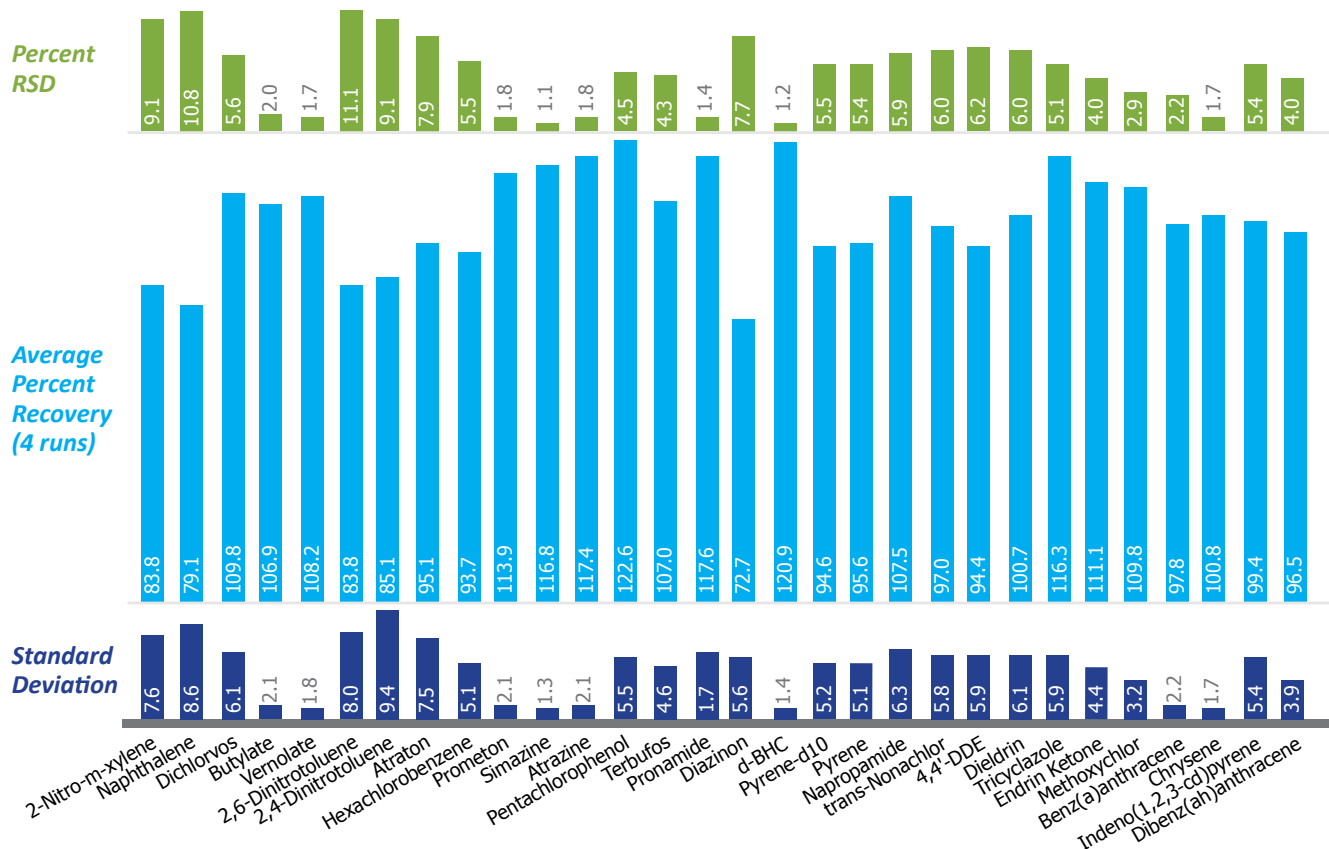
Automatic processes make running samples easier than ever. On screen status icons inform the operator of each SPE function as they happen.

Work smarter with the new SmartPrep™ Extractor

Horizon Technology's affordable, modular solution to solid phase extraction features easy to use, proprietary software developed by chemists for maximum sample throughput and optimal chromatography. Simplify sample preparation in your lab while enhancing data integrity.

Drinking Water Extraction with SmartPrep: EPA Method 525.2

For a full listing of all compounds visit www.horizontechinc.com/smartprep



Conditions

- 5 µg/L 525.2 spikes in DI water at pH2
- 1g Cartridges, Phenomenex Strata 6 mL (batch S201-99)
- Extracts dried by DryDisk followed by sodium sulfate
- Concentrated to 1 mL
- Analyzed by GC/MS
- SPE cartridge, C-18, 6 mL

Results compliant with EPA limits of Method 525.2 Section 9.3 Initial Demonstration of Laboratory Accuracy and Precision.



www.horizontechinc.com

About Us

Since 1993, Horizon Technology has provided a total solutions approach to the automation of solid phase extraction and sample prep for environmental water samples. By blending a wealth of chemistry knowledge, applications know-how, instrument and SPE disk manufacturing expertise, with our commitment to customer service, we proudly support today's environmental laboratories.

January 2012 / 2500

Locations

World Headquarters North America

45 Northwestern Drive
Salem, NH 03079 USA
Tel: +1.603.893.3663
Fax: +1.603.893.4994

www.horizontechinc.com/smartprep

Ordering Information

SPE-2600 SmartPrep Extractor Base Module (12 sample capacity) Inclusive of:

- | | |
|-----|---|
| (1) | 6 mL Plunger Assembly |
| (1) | Tubing Set –Installed
(including reagent sample lines) |
| (1) | USB cable (module to hub) |
| (1) | Drip tray |
| | Gas feed tubing kit (49-2820-01) |
| (1) | Sample collection rack (2x6) for
20 mL VOA vials |
| | 6 mL SPE cartridge sample pack
w/ cleaning cartridge |
| | Universal power supply (with US cord)
(110-240VAc input)* |
| (1) | Waste line kit (3 lines, 6 ft. each, male luer
fittings both ends, numbered 1-3) |

Compatible with most 1, 3, and 6 mL SPE cartridges

***Must order one of the following SmartPrep Starter Kits
listed below with the base module.***

49-2807-01 SmartPrep Starter Kit w/Device Controller (supports 1-8 Base Modules) Inclusive of:

- | | |
|-----|---|
| (1) | CD with operating software, initial methods
and operating manual |
| (1) | Nitrogen gas regulator/bracket assembly |
| (1) | USB Hub and cable |
| (1) | Device controller module (PC) |

OR

49-2807-02 SmartPrep Starter Kit w/out Device Controller (supports 1-8 Base Modules) Inclusive of:

- | | |
|-----|---|
| (1) | CD with operating software, initial methods
and operating manual |
| (1) | Nitrogen gas regulator/bracket assembly |
| (1) | USB Hub and cable |



www.horizontechinc.com

Contact Us

World Headquarters

45 Northwestern Drive

Salem, NH 03079 USA

Tel: +1.603.893.3663

Fax: +1.603.893.4994

Ordering Information



Intelligent Automated
Solid Phase Extraction

Optional Accessories

Part Number	Accessory
49-2812-02	Collection rack, 2x6 for twelve 40 mL VOA vials
49-2812-03	Collection rack, 2x6 for twelve 13x100 mm (9.5 mL) test tube
49-2812-04	Collection rack, 2x6 for twelve 10 mL graduated Wheaton vials
49-2100-03	Inserts for 1 mL cartridges (15 Pk.)
49-2300-03	Inserts for 3 mL cartridges (15 Pk.)
49-2810-02	10" Stainless steel sip tubes (12 Pk.)
49-2810-03	5" Stainless steel sip tubes (12 Pk.)
49-2814-01	3.1 micron filters (50 Pk.)
49-2815-01	Universal tilting sample rack (Four 1 liter bottles - 12, 40 mL VOA vials)
49-2810-01	Automatic sample bottle rinse module
49-2100-04	Cleaning cartridges 1 mL (50 Pk.)
49-2300-04	Cleaning cartridges 3 mL (50 Pk.)
49-2600-04	Cleaning cartridges 6 mL (50 Pk.)

System Specifications

System Component	Specification
Cartridge Size	1, 3, 6, mL
Number of Cartridges	12
Number of Reagents Supported	8
Collection Tubes	12 & 13 mm test tubes and 20 & 40 mL vials
Sample Volume	1.0 mL - 4.0 Liter
Number of Samples	12-96 Sequential & up to 8 simultaneously
Physical Dimensions	18"H x 8.5"W x 22.5"D
Weight	43 lbs
Electrical Input	110-240 VAC
Gas Requirements	Nitrogen (Max pressure 60 PSI)
Regulatory Compliance	CE, ETL, CSA C22.2 #61010-1, ANSI/UL 61010-1