



SPE-Express[®] 2

Automated Oil & Grease Extraction System for EPA Method 1664

The SPE-Express 2 optimizes EPA Method 1664 for hexane extractable materials (HEM) in contaminated aqueous samples. The only SPE system on the market today that both extracts and evaporates the sample providing a fully automated analysis and conserving your labs most important resource—its analysts' time.



environmentalexpress.com

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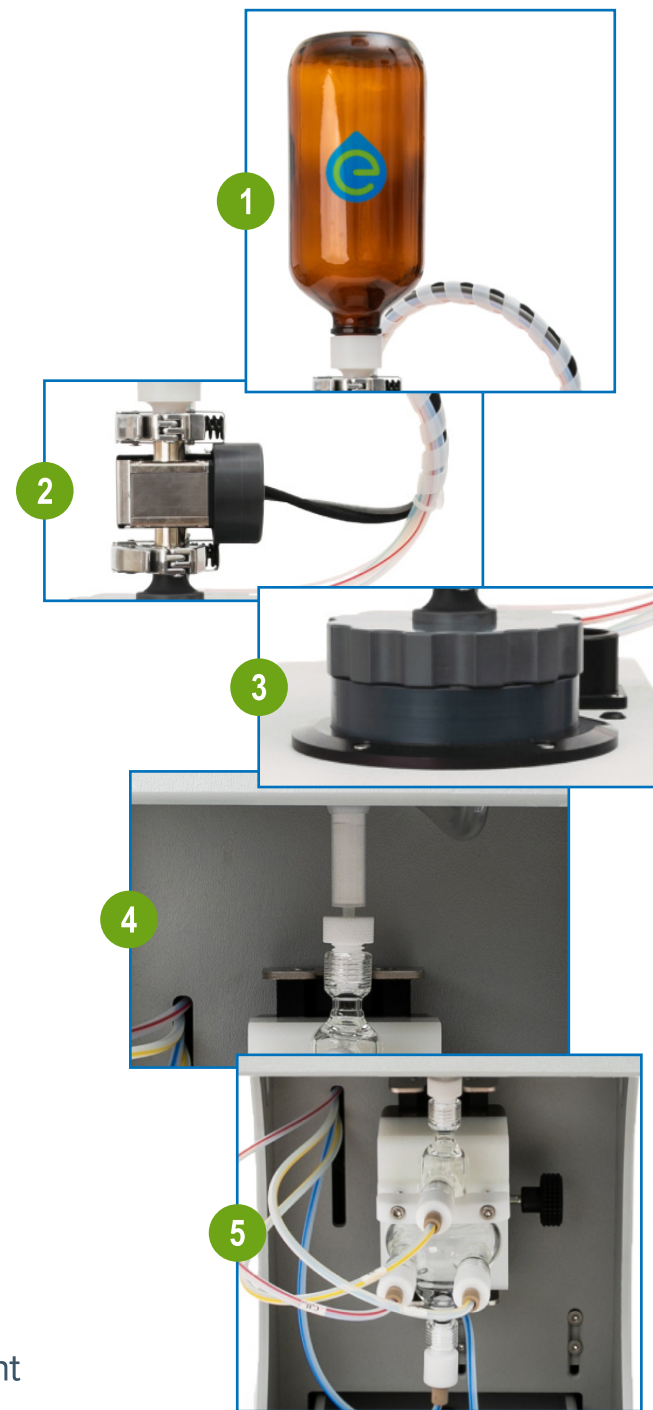
LA03121 Rev 1



Automation of EPA Method 1664

All SPE-Express 2 functions are performed in compliance with method parameters authorized by the EPA

- 1 Sample management — accepts 1 L bottles with 33, 53, 70, and 89 mm bottle openings
- 2 Sample handling — pressurized sample transfer and sample bottle rinsing for complete sample analysis
- 3 SPE extraction — oil and gas components are retained until eluted with n-hexane
- 4 Sample drying — water removal accelerates sample drying and reduces run time
- 5 Mixing chamber — consolidates three sequential SPE elutions for greatest sample accuracy



A combination of SPE and automated method control creates **reliable accuracy**

Preloaded methods for ease of use

- SPE-Express 2 comes with preloaded method parameters for US EPA Method 1664
- Methods can be customized to meet individual lab SOP requirements
- A user interface (UI) that is easily navigated by technician level staff

SPE extraction conserves analyst time versus traditional L/L extraction methods

- Oil and gas components are retained until eluted with with n-hexane. Antiquated L/L extraction technique requires human sample interaction and can lead to incomplete sample extraction and inaccurate reporting.

Uncompromised accuracy with elimination of carryover

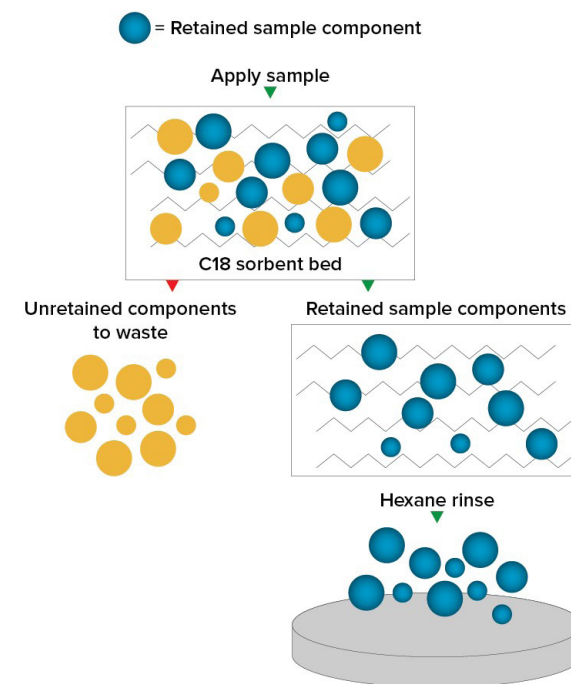
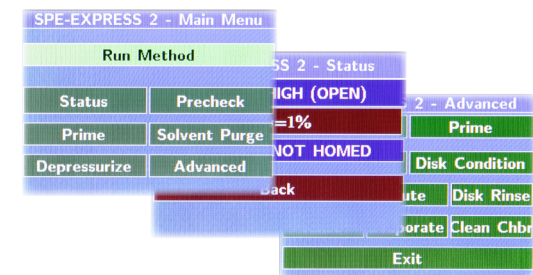
- MDL evaluations at 7.5 mg produced negligible deltas between known and measured concentrations
- When performed intermittently between MDL sample evaluations, system carryover was eliminated via thorough automated cleaning procedures

Table 1: MDL study of 7.5 mg standard n=7

Rep	Initial (g)	Final (g)	Difference (g)	Result (mg/L)
1	6.3752	6.383	0.0078	7.8
2	6.3165	6.324	0.007	7
3	6.3366	6.344	0.0075	7.5
4	6.3249	6.332	0.0073	7.3
5	6.2914	6.299	0.0076	7.6
6	6.35	6.358	0.0075	7.5
7	6.3421	6.35	0.0074	7.4

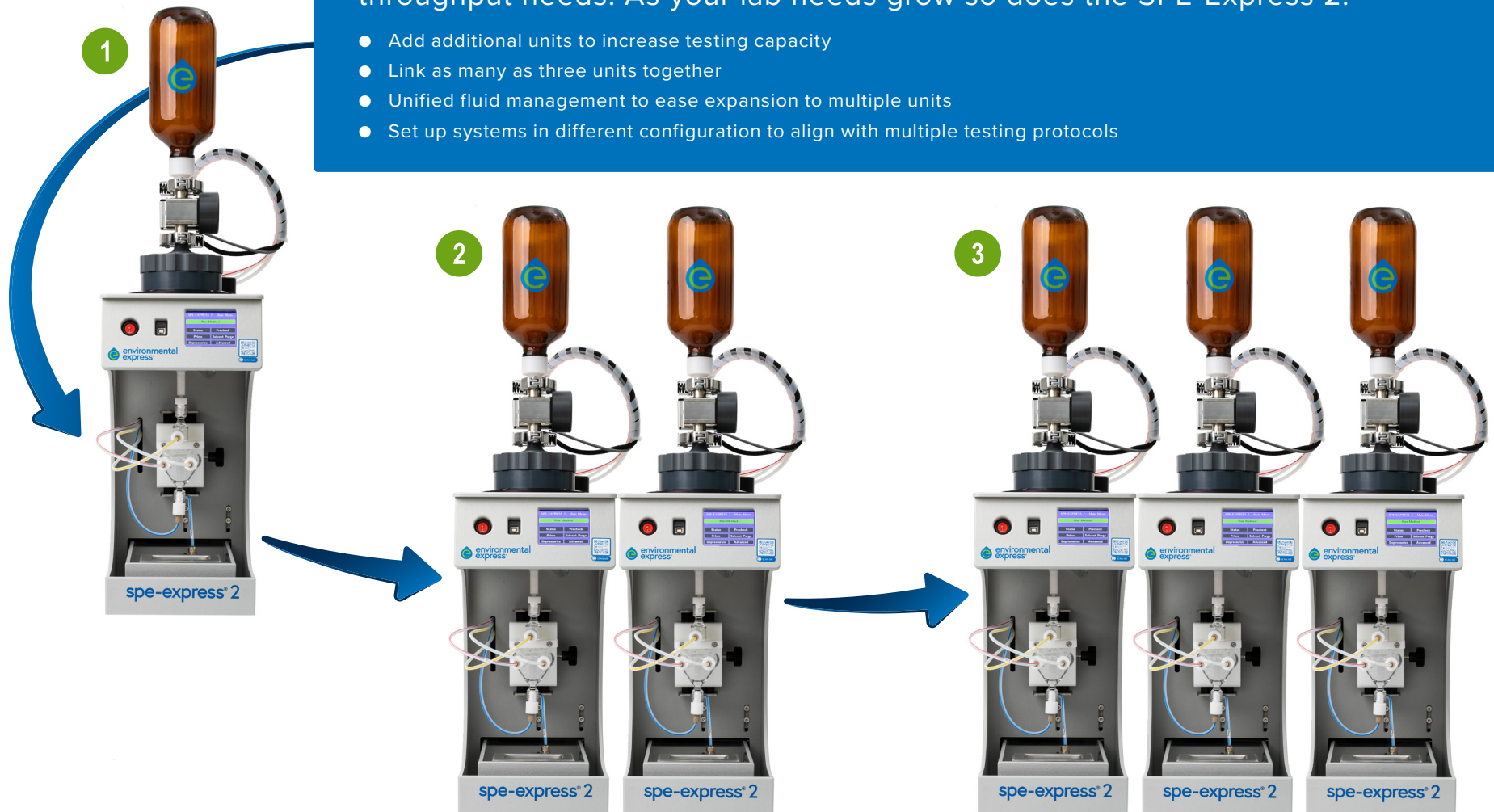
Table 2: MDL blank study evaluation n=7

Rep	Initial (g)	Final (g)	Difference (g)	Result (mg/L)
1	6.1503	6.151	0.0005	0.5
2	5.9512	5.952	0.0005	0.5
3	6.0745	6.075	0.0002	0.2
4	6.0923	6.093	0.0003	0.3
5	6.0714	6.072	0.0006	0.6
6	6.0529	6.053	0.0004	0.4
7	6.0858	6.087	0.0008	0.8



Suited for all labs of all sizes, the system can be adapted to fit your sample throughput needs. As your lab needs grow so does the SPE-Express 2.

- Add additional units to increase testing capacity
- Link as many as three units together
- Unified fluid management to ease expansion to multiple units
- Set up systems in different configuration to align with multiple testing protocols

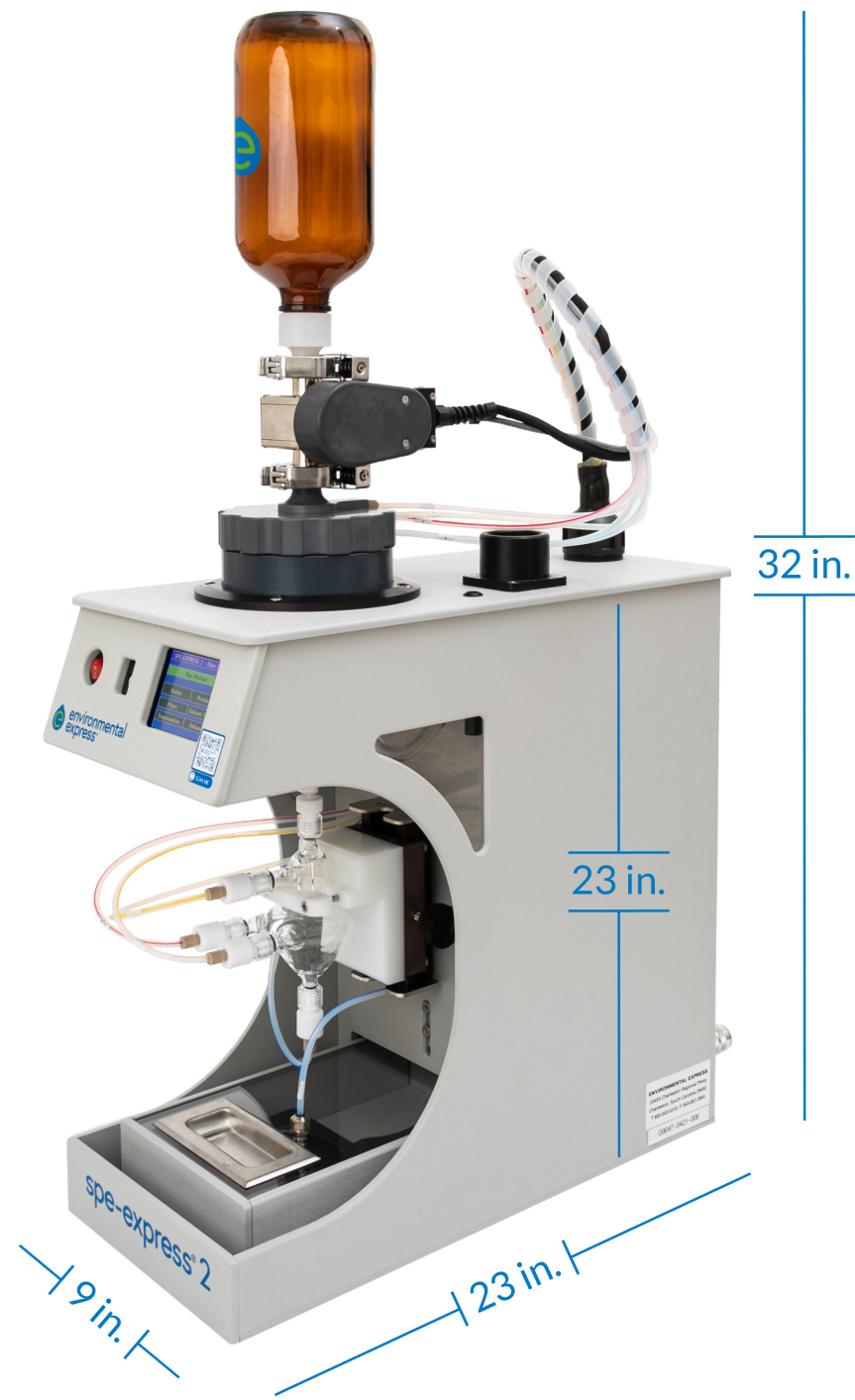


Self contained

- A sealable sash contains the evaporation step removing the need for valuable fume hood space

Limited benchspace

- With a footprint of only 9" W x 32" H (with bottle installed) x 23" D, the SPE-Express 2 conserves benchspace for alternate uses



Related Products & Accessories

The SPE-Express 2 allows adaptation to the following components:

- 1 L Sample bottles, wide or narrow 70, 89 and 53 mm openings
- SPE disk assemblies with 47 mm and 90 mm pre-conditioned or unconditioned SPE disks
- NaH₂SO₄ drying cartridges
- Aluminum pans for sample collection

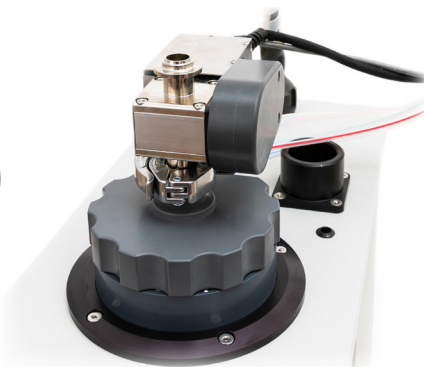


Table 3: Custom configuration consumables for SPE-Express 2 workflow

SPE-Express 2 Consumables	
Extraction disks selection (UltraPrep® is sent with the unit)	1 L glass sample collection bottle selection
GUP5260 is the 47 mm UltraPrep® disk assembly*	APC1430 is a 1 L Boston round, amber (has a unique adapter)
GUP5290 is the 90 mm UltraPrep® disk assembly*	APC1500 is a 1 L Boston round, clear (has a unique adapter)
G5260 is the 47 mm UltraFlow® disk assembly**	APC1045 is a 1 L 70 mm wide-mouth, clear, with cap
G5290 is the 90 mm UltraFlow® disk assembly**	APC1040 is a 1 L 89 mm wide-mouth, clear, with cap
Drying cartridge – G1065	APC1052 is a 1 L 70 mm wide-mouth, clear, with cap
Aluminum pan – F93140DSH	APC1213 is a 1 L 53 mm wide-mouth, amber (default matching adapter)
Snip & Pour® HEM Standard – G3025	

* Pre-conditioned SPE disks

** Unconditioned SPE disks – require additional conditioning steps prior to analysis



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