Systems

ASE® 100 Accelerated Solvent Extractor



The ASE 100 is an entry level accelerated solvent exraction system. This system is economically priced while offering fast and efficient extraction for a large range of sample sizes. The new system design allows for the extraction of samples up to 100 mL quickly and easily using minimal amounts of solvent.

Product Highlights

- Reduces extraction time and solvent consumption by the use of elevated temperature and pressure during extraction.
- Extracts from one- to fifty-gram samples useing 15–150 mL of solvent.
- Extracts are automatically filtered and ready for direct injection or final clean-up.
- Easy-to-fill sample cells (10, 34, 66, and 100 mL) with finger-tight fittings.
- Easy-to-use collection bottles
- Convenient multiple method storage for ease of use
- Convenient front panel operation runs method automatically

Accelerated Solvent Extraction

ASE is a technique for extracting solid and semisolid samples with liquid solvents. It uses conventional liquid solvents at elevated temperatures and pressures to increase the efficiency of the extraction process. Increased temperature accelerates the extraction kinetics, while elevated pressure keeps the solvent below its boiling point, thus enabling rapid extractions.



Approved Methods

ASE meets all of the requirements for extraction under U.S. EPA SW-846 Method 3545A for Pressurized Fluid Extraction of base/neutral and acids (BNA), organochlorine pesticides (OCP) chlorinated herbicides, polychlorinated biphenyls (PCBs), organophosphorus pesticides (OPP), polychlorinated dioxins and furans, and total petroleum hydrocarbons (TPH).

ASE replaces Soxhlet, sonication, wrist shaking, and other extraction techniques.

Ordering Information

In the U.S., call 1-800-346-6390 or contact the Dionex regional office nearest you. Outside the U.S., order through, your local Dionex office or distributor. Refer to the part numbers in the table.

All ASE 100 systems include two of the designated sample extraction cells and 12 clear 250-mL collection bottles.

PART NUMBERS Description **Part Number**

SPECIFICATIONS

Oven:

Accepts 10-, 34-, 66-, and 100-mL cells Extraction cell door handle places cell into oven

Temperature control up to 200 °C Vertical cell orientation with flow from top to bottom

Pump:

Fluid delivery pressure at 10 MPa (1500 psi)

Automatic pressure sensor and pressure relief during heat-up

Fluid Sensors:

IR sensors detect the presents of a collection bottle and fluid levels during extract collection.

Display and Keyboard:

Menu operated

VFD 4 x 20 character display

Method storage

Extraction Cells:

Four capacities: 10, 34, 66, and 100 mL Internal cell diameter: 17.1, 28.3 mm Finger-tight cell caps with compression seal for high-pressure closure

Collection Bottles:

250 mL: bottles lids have solvent resistant septa (TFE-coated on solvent side)

Collection Bottle Holder: Compatible with 250-mL bottles

Extraction Fluids:

Compatible with a wide range of organic and aqueous solvents

Dimensions (h x w x d): 55.6 x 35.6 x 47.5 cm (21.9 x 14.0 x 18.7 in.)

Weight: 34 kg (75 lb)

Power Requirements:

Consumption: 500 VA (Watts) max. Voltage: 100-120 or 220-240 V ac

Frequency: 50/60 Hz

Pneumatic Requirements: Air at 400–827 kPa (60–120 psi)

(optional)

N₂ at 1034–1340 kPa (150–200 psi)







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