

AutoTrace 280: Solid-Phase Extraction Instrument



The AutoTrace® 280 instrument handles large volume Solid-Phase Extraction (SPE) of liquid samples from 20 mL to 4 liters. The instrument can be configured with 1, 3, or 6 mL SPE cartridges or 47 mm solid-phase disks. The instrument automatically loads liquid matrices on the SPE material then automatically elutes the analytes of interests using up to five different solvents.

Now sold under the
Thermo Scientific brand

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System Features

- Automatically conditions, rinses, and elutes SPE cartridges with a choice of five solvents or reagents
- Simultaneously loads up to six samples
- Loads sample volumes from 20 mL to 4000 mL
- Offers choice of four different collection vial racks
- Segregates aqueous and solvent waste using separate waste lines
- Processes ground, surface, and wastewater samples – even those containing suspended solids
- Easy-to-use SPE specific software
- Supports SPE cartridges or discs
- Documented EPA methods for water testing
- Integrated venting of solvent vapors

Applications

The AutoTrace instrument is perfect for laboratories looking to automate large volume water extractions. AutoTrace applications include many of the U.S. EPA methods and a variety of other SPE sample preparation cleanup methods.

Methods

- U.S. EPA Method 525
- U.S. EPA Method 549.2
- U.S. EPA Method 508 & 608
- U.S. EPA Method 625
- U.S. EPA Method 1664
- Extraction of total petroleum hydrocarbons
- Extraction of acid herbicides
- Extraction of triclosan
- Extraction of nitrosamines (EPA Method 521)
- Extraction of steroids and phytoestrogens
- Extraction of endocrine disruptors (EPA Method 1694)
- Extraction of personal care products



Passion. Power. Productivity.

TABLE 1. PERFORMANCE				
Pesticide Recovery Study N = 6	AutoTrace SPE		Vacuum Manifold SPE	
	Recovery%	RSD	Recovery%	RSD
Atrazine	88	1.8	54	12.2
Propazine	91	1.5	80	7.3
Alachor	99	3.4	96	4.1
Metachor	99	4.3	96	2.9

Table 1 shows a pesticide recovery study comparing the AutoTrace SPE technique and a vacuum manifold technique. The improvements in recovery and reproducibility are attributed to the microprocessor control of all the liquid flow rates – both sample and SPE reagents.

KEY SPECIFICATIONS	
<p>Gas Regulator and Gas Gauge Range: Output: 0–30 psi (0–1.4 bars), Input: 100 psi (6.9 bars) maximum</p> <p>Net Weight: 150 lbs. (68.1 kg)</p> <p>Dimensions (h × w × d): 23 × 25 × 27 in (57 × 63.5 × 69 cm) Sample Rack: 8 × 16.5 × 13 in)</p> <p>500 & 600 Series EPA Methods: 24 methods stored in the AutoTrace instrument, unlimited number of methods stored in PC</p> <p>Electrical: Voltage: 100, 120, 220, or 240 V ± 10% Frequency: 47–63 Hz Power: 150 Volt AC</p> <p>Liquid Management: Air Syringe: One 10 mL air syringe LH Syringe: One 10 mL liquid handling syringe 12-port Valve: Rotary, sliding Rulon® seal Valves: 3-way, Teflon® Nozzles: Stainless steel Tubing: TFE, 1/16" ID, (6 total supplied)</p>	<p>Sample Pumps: Displacement: Positive Accuracy: ± 2.5% Tube Fitting: Kynar® Piston and Liner: Ceramic Non Use: Not for use with acetic acid and acetone</p> <p>Solid Phase Extraction Configurations: 1 mL Syringe: Compatible cartridge 3 mL Syringe: Compatible cartridge 6 mL Syringe: Compatible cartridge 47 mm SPE disk</p>

ORDERING INFORMATION	
To order, use the following part numbers and contact your local Dionex office or distributor nearest you. In the U.S., call (800) 346-6390. In other regions, refer to the phone numbers below.	
Description	
AutoTrace 280 Automated Large Volume SPE for Disks	071386
AutoTrace 280 Automated Large Volume SPE for 6 mL Cartridges	071385
AutoTrace 280 Automated Large Volume SPE for 3 mL Cartridges	072605
AutoTrace 280 Automated Large Volume SPE for 1 mL Cartridges	072604
AutoTrace 280 Automated Large Volume SPE for 6 mL Glass Cartridge.....	072606

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Kynar is a registered trademark of Arkema Inc.



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