The Thermo Scientific™ Dionex™ AutoTrace™ 280 Solid-Phase Extraction instrument and the Thermo Scientific™ Dionex™ AutoTrace™ 280 PFAS Solid-Phase Extraction instrument handle large volume Solid-Phase Extraction (SPE) of liquid samples from 20 mL to 4 L. The instruments can be configured with 1, 3, or 6 mL SPE cartridges or 47 mm solid phase extraction disks. The instruments automatically load liquid samples on the SPE sorbent then automatically extract the analytes of interest using up to five different solvents.

**System features**
- Automatically conditions, rinses, and elutes SPE cartridges with a choice of five solvents
- Simultaneously loads up to six samples
- Loads sample volumes from 20 mL to 4 L
- Offers choice of six different collection vial racks
- Segregates aqueous and solvent waste using separate waste lines
- Processes ground, surface, and wastewater samples
- Easy-to-use SPE software
- Supports SPE cartridges
- Documented U.S. EPA methods for drinking, surface, and waste water
- Integrated venting of solvent vapors
- Greatly reduces background contamination with non-fluoropolymer-based tubing, valves, and filters
**Applications**
The Dionex AutoTrace 280 SPE instruments are perfect for laboratories looking to automate large volume water extractions. The Dionex AutoTrace 280 instruments applications include many of the U.S. EPA Methods and a variety of other SPE sample cleanup methods.

**Methods**
- U.S. EPA Method 533 and 537.1*
- U.S. EPA Method 508 and 608
- U.S. EPA Method 525

*Recommended for PFAS extractions

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**Table 1.**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Recovery%</th>
<th>RSD</th>
<th>Recovery%</th>
<th>RSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrazine</td>
<td>88</td>
<td>1.8</td>
<td>54</td>
<td>12.2</td>
</tr>
<tr>
<td>Propazine</td>
<td>91</td>
<td>1.5</td>
<td>80</td>
<td>7.3</td>
</tr>
<tr>
<td>Alachor</td>
<td>99</td>
<td>3.4</td>
<td>96</td>
<td>4.1</td>
</tr>
<tr>
<td>Metachor</td>
<td>99</td>
<td>4.3</td>
<td>96</td>
<td>2.9</td>
</tr>
</tbody>
</table>

Table 1 shows a pesticide recovery study comparing the AutoTrace 280 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 solvents.

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas regulator and gas gauge range</td>
<td>Output: 0–30 psi (0–1.4 bars), Input: 100 psi (6.9 bars) maximum</td>
</tr>
<tr>
<td>Net weight</td>
<td>150 lbs. (68.1 kg)</td>
</tr>
</tbody>
</table>
| Dimensions (h × w × d)                     | Instrument: 23 x 25 x 27 in. (57 x 63.5 x 69 cm)  
Sample Rack: 8 x 16.5 x 12 in. (20.3 x 41.9 x 33 cm) |
| U.S. EPA Methods 500 and 600 Series        | 24 methods stored in the Dionex AutoTrace 280 SPE instruments |
| Electrical                                 | Voltage: 100, 120, 220, or 240 V ± 10%  
Frequency: 47–63 Hz  
Power: 100 W |
| 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 or PEEK with AutoTrace 280 PFAS SPE instrument for U.S. EPA Method 533 and 537.1  
Nozzles: Stainless steel  
Tubing: TFE, 1/16” ID, (6 total supplied) or PEEK with AutoTrace 280 PFAS SPE instrument for U.S. EPA Method 533 and 537.1 |
| Sample pumps                               | Displacement: Positive  
Accuracy: ± 2.5%  
Tube fitting: Kynar  
Piston and liner: Ceramic  
Non use: Not for use with acetic acid and acetone |
| Solid phase extraction configurations      | 1 mL syringe: Compatible cartridge  
3 mL syringe: Compatible cartridge  
6 mL syringe: Compatible cartridge  
47 mm SPE disk |
Ordering information
In the U.S., call (800) 346-6390 or contact the Thermo Fisher Scientific Regional Office nearest you. Outside the U.S., order through your local Thermo Fisher Scientific office or distributor. Refer to the following part numbers.

<table>
<thead>
<tr>
<th>Description</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dionex AutoTrace 280 Automated Large Volume SPE for disks</td>
<td>071386</td>
</tr>
<tr>
<td>Dionex AutoTrace 280 Automated Large Volume SPE for 6 mL cartridges</td>
<td>071385</td>
</tr>
<tr>
<td>Dionex AutoTrace 280 Automated Large Volume SPE for 3 mL cartridges</td>
<td>072605</td>
</tr>
<tr>
<td>Dionex AutoTrace 280 Automated Large Volume SPE for 1 mL cartridges</td>
<td>072604</td>
</tr>
<tr>
<td>Dionex AutoTrace 280 Automated Large Volume SPE for 6 mL glass cartridges</td>
<td>072606</td>
</tr>
<tr>
<td>Dionex AutoTrace 280 PFAS Automated Large Volume SPE for U.S. EPA Method 533 and 537.1</td>
<td>22136-60101</td>
</tr>
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</table>

Find out more at thermofisher.com/autotrace