## Specifications

<table>
<thead>
<tr>
<th>Chemistry:</th>
<th>Photochemical Oxidation via UV-Persulfate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detector:</td>
<td>Nondispersive Infrared (NDIR) with Static Pressure Concentration (SPC) – Patent-Pending</td>
</tr>
<tr>
<td>Analytical Modes:</td>
<td>TOC (NPOC), TC-IC, TC,IC, (POC optional)</td>
</tr>
</tbody>
</table>
| Analytical:         | Limit of Detection: 0.5 ppb  
Maximum Measurable Concentration: 4,000 ppm (sample volume and dilution dependent)  
Carryover: ≤ 1.0% Cross Contamination  
Sample Size: 20 µl to 20 mL  
Precision*: ≤ 1.0% RSD, +/- 1 ppb or +/- 0.02 ugC, typical of a mid-range standard (whichever is greater over seven replicates).**  
* Analytical performance affected by laboratory water, reagent and gas purity, as well as sample container cleanliness, sample matrix, gas regulator cleanliness and precision, and operator skill.  
** %CV Area, as opposed to %CV and %RSD, calculates precision before blank subtraction. This yields a lower precision measurement, but improves sensitivity and accuracy |
| Analysis Time:      | 18 Minutes for Triplicate TOC Analysis of a Mid Range Standard |
| Carrier Gas Handling: | Mass Flow Controller for instant control of carrier gas (0 – 500 ml/min). Auto-Leak Check. |
| Liquid Handling:    | Syringe pump, 8-port distribution valve  
Patented self-cleaning sample handling process that cleans reactor chambers on every repetition. |
| Sample Introduction: | Integrated Autosampler |
| Controller:         | PC, Interface through Windows™ 2000 and XP  
Options: Integrated PC, TouchScreen Monitor Display and Attached Multi-Rotational Arm |
| Data Handling:      | Reports exportable XML and HTML format  
Real-time and Historical graphical display of NDIR detector data  
Ability to view historical results from multiple schedules on one graphical display.  
Ability to store customized individual test methods  
Priority samples via schedule interrupt  
Recalculating of data, outlier deletions, and precision performance criteria controls (21 CFR Part 11 compliant) |
| Calibration:        | Auto-Calibration from Single Stock Standards or User Calibration Standards.  
Multi-point (Linear or Quadratic) and auto-blanking  
Ability to use one calibration curve and blank for entire instruments’ analytical range.  
Auto-Check Standards from Single Stock Standards or User Calibration Standards with pass/fail criteria and decision control upon failure (Halt, Re-Calibrate, or Continue)  
Auto-System Suitability with Performance Measurements. |
| Other Features:     | Pre-programmed point and click method setup  
Automatic shutdown/standby  
Instrument condition light  
Built-in PC Standalone Feature with Touchscreen attached to instrument.  
Programmable install flow rate and pressure control and monitoring  
Validation Support Package available  
Auto-dilution of samples/standards |
**Principle Applications:** Drinking and Surface Water, Ground Water, Cleaning In Place (CIP) Validation, Water for Injection (WFI), Boiler Feed Water, Cooling Water


**Certification:** CE, EMC EN 50081-1 and EN 50082-1

**Utility Requirements:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>100/120/230 VAC (± 10%)</td>
</tr>
<tr>
<td>Frequency</td>
<td>50/60 Hz</td>
</tr>
<tr>
<td>Power</td>
<td>368 VA</td>
</tr>
</tbody>
</table>

**Dimensions:** Fusion dimensions are 18” wide, 24.5” deep, 32” high
Typical computer dimensions are 18” wide, 27” deep, 22” high

**Gas Supply**

- 99.99% pure nitrogen cylinder
- 99.5+% nitrogen (with Piccolo Nitrogen Generator)

**Gas Pressure:** 65 to 100 psi

**Autosampler**

- **Positioning Performance:**
  - Accuracy: ± 2.5mm
  - Repeatability: ± 0.25mm

- **Septum Piercing:** Vertical punch strength of 3.8 kg (8.3 lbs.)

- **Rinsing:** Auto-rinsing from sample and/or rinse water via built-in rinse station.

- **Rack Selection:**
  - 75 position; 40ml VOA vials (28 x 95 mm)
  - 90 position; 55ml test tubes (25 x 150 mm)*
  - 120 position; 20ml test tubes (18 x 150 mm)

  * Screw cap tube has 50 mL capacity to neck. Disposable tube has approx. overflow capacity of 60 mL.

- **Dimensions:** 21.1” W x 17.2” D x 14.6” H (53.5cm W x 43.7cm D x 37.1cm H)
  39 lbs. (17.7 kg)

**Electrical:**

- **Voltage:** 100/120/230 VAC ( 10%)
- **Frequency:** 50/60 Hz
- **Power:** 200VA

**Certification:** UL, CSA, and CE; EMC EN50081-1 and EN 50082-1

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**Minimum Computer Requirements**

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Processor</td>
<td>1Ghz Pentium or equivalent</td>
</tr>
<tr>
<td>Memory</td>
<td>512MB</td>
</tr>
<tr>
<td>Hard Drive</td>
<td>1GB of free Hard Drive space</td>
</tr>
<tr>
<td>Display</td>
<td>VGA or higher resolution</td>
</tr>
<tr>
<td>Drive</td>
<td>4X CD-ROM</td>
</tr>
<tr>
<td>Input/Output Devices</td>
<td>Mouse, Windows XP SP2</td>
</tr>
<tr>
<td></td>
<td>Compatible Speakers and sound system</td>
</tr>
</tbody>
</table>