

# QbD1200 LABORATORY TOTAL ORGANIC CARBON ANALYZER

## Applications

- Pharmaceutical
- Drinking Water
- Semiconductor
- Power



## The Hach QbD1200 takes the pain out of TOC analysis and lowers your total cost of ownership.

### Want to Trust Your TOC Results?

Stop throwing away your first replicate. The QbD1200 has 95% less carryover. Inconsistent results? Trust 2% standard deviation at 50 ppm and 3% at 100 ppb.

### Want to Lower Your Total Cost?

Stop wasting money. Save 60% of your reagent costs. Say goodbye to frequent maintenance. Enjoy annual service vs. monthly.

### Want to Simplify Your Analysis Process?

Tired of complicated setup? Begin testing with 90% fewer steps.

### Want to Save Time?

Stop wasting all day calibrating. Only 90 minutes for a calibration routine.



Be Right™

## Specifications\*

<b>Range</b>	0.4 ppb - 100 ppm
<b>Precision</b>	3% or 3ppb, whichever is greater
<b>Accuracy</b>	± 2 %
<b>Sample to Sample Carryover</b>	<0.2%
<b>Overload Recovery</b>	1 Measurement
<b>Inorganic Carbon Handling</b>	No extra Inorganic Carbon Removal Module needed
<b>Oxidation Method</b>	UV Lamp + Persulfate
<b>Carrier Gas Options</b>	CO <sub>2</sub> free Air, O <sub>2</sub> , or N <sub>2</sub>
<b>Data Export</b>	PDF, CSV
<b>Display Type</b>	10.4 inch Hi-Res Color Touch Screen

<b>Calibration Method</b>	Automated Routine: 18 Point Calibration Using KHP (6 Concentrations, 3 Replicates Each)
<b>Calibration Interval</b>	1 Year; Time to Calibrate 90 Minutes
<b>Compliance</b>	USP <643> (including Sterile Water SST), JP-16 <2.59>, EP <2.2.44>, IP, CP, KP, US EPA 5310c and 415.3
<b>Power Requirements (Voltage)</b>	100/240 V AC
<b>Power Requirements (Hz)</b>	47 - 63 Hz
<b>Dimensions Metric (H x W X D)</b>	410 mm x 320 mm x 507 mm

\*Subject to change without notice.

## Principle of Operation

### TIC

Acid is added to lower the pH so that inorganic carbon is sparged off as CO<sub>2</sub>. This is measured to ensure Total Inorganic Carbon (TIC) is not carried over into the TOC.

### Oxidation

Convert TOC into CO<sub>2</sub> gas. In presence of UV light and powerful oxidizer (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub>, organic carbon species are converted into CO<sub>2</sub> gas by oxidation. Carrier gas is blown through the reaction chamber to push all CO<sub>2</sub> gas through NDIR detector.

### TOC

CO<sub>2</sub> gas is detected as it goes through NDIR detector and TOC is quantified by integrating the area under the curve. TOC is then calculated, based on instrument calibration, by converting the CO<sub>2</sub> gas signal (area under the curve) into TOC.

## Ordering Information

### QbD1200 Instrument

**9450000** QbD1200 Laboratory Total Organic Carbon Analyzer

### QbD1200 Autosampler

**9467100** QbD1200 Autosampler

### QbD1200 Reagent/Standards

**9459400** One Reagent Stock Solution  
**9459500** 5 ppm C KHP Calibration Solution  
**9459600** SDBS Validation Kit  
**9459700** USP System Suitability Kit (500 ppb)  
**9459800** USP System Suitability Kit (8 ppm)  
**9459900** Specificity Test Kit  
**9460000** Robustness Test Kit  
**9460100** Validation Protocol Kit

### QbD1200 Instrument and Autosampler Replacement Items

**9449900** Syringe Replacement Kit  
**9449300** Ozone Destructor Replacement Kit  
**9459100** Replacement Tubing Kit  
**9449200** UV Reactor Replacement Kit  
**9464200** Reagent Bottle/Custom Cap Kit  
**9454300** QbD1200 Power Supply  
**9467200** Autosampler Tray  
**9454400** Extender Tool for QbD1200 Autosampler Tube Connection  
**9467300** QbD1200 Autosampler Power Supply  
**9467400** QbD1200 Autosampler Needle Sleeve  
**SP6790** Autosampler Septum Piercing Needle

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LIT2831

J14 Printed in U.S.A.

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Hach Company reserves the right to alter specifications to equipment at any time.



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