

## Specifications

<b>Chemistry:</b>	Oxidation by Combustion; From 680°C to 1000°C			
<b>TOC Modes:</b>	TOC (NPOC), TC-IC, TC, IC			
<b>TOC Analytical:</b>	<b>Apollo 9000</b>		<b>Apollo 9000 HS</b>	
	Range*:	100 ppb to 25,000 ppm (sample volume and dilution dependent) using only 5 selectable analytical ranges	Range*:	4 ppb to 4,000 ppm (sample volume and dilution dependent) using only 4 selectable analytical ranges
	Precision*:	Typical 0.05% of full scale or RSD +/- 3%, whichever is greater, over 3 replicates	Precision*:	Typical 0.25% of full scale or RSD +/- 3%, whichever is greater, over 3 replicates
	Injection Volume:	Up to 2 mL	Injection Volume:	Up to 2 mL
	Analysis Time:	1 to 3 minutes, typical	Analysis Time:	1 to 3 minutes, typical
	TOC Run Time:	20 minutes per triplicate, typical	TOC Run Time:	20 minutes per triplicate, typical
	Detector:	Nondispersive Infrared (NDIR), 125 mm cell	Detector:	Nondispersive Infrared (NDIR), 250 mm cell
	*Analytical performance is affected by reagent and gas purity, sample container cleanliness, sample matrix, and operator skill.			
<b>TN Modes:</b>	TN, TN/TC, TN/TOC (NPOC), TN/TC-IC			
<b>TN Analytical:</b>	Range*:		50 ppb to 2000 ppm	
	Precision*:		Typical +/- 3% RSD or +/-25 ppb (TN), whichever is greater	
	Injection Volume		Up to 500 µL	
	Analysis Time		2-4 minutes typical	
	Total TOC/TN run time		20 minutes for triplicate analysis typical	
	Detector		Photo-diode chemiluminescence detector	
	*Analytical performance is affected by reagent and gas purity, sample container cleanliness, sample matrix, and operator skill. Precision specification applicable for the following standards: Ammonium Chloride, Ammonium Nitrate, Potassium Nitrate and Urea. Other standards and sample matrices may vary.			
<b>Liquid Handling:</b>	Syringe pump, 8-port distribution valve; Auto-dilution method provided from 4000 ppm to 25,000 ppm and difficult matrixes; Auto-rinsing from sample and/or rinse water			
<b>Sample Introduction:</b>	Automatic syringe injection; Autosampler; Solids Boat; Manual Syringe			
<b>Controller:</b>	PC, Interface through Windows® (98, NT, ME, XP); Password Protected			
<b>Data Handling:</b>	Automatic and customized Spreadsheet reports transferable to Microsoft™ Excel™; Real-time display of peaks; Automatic outlier deletion; Recalculations with different calibration curves; Recalculations with different blank values.			
<b>Calibration:</b>	Multi-point calibration and automatic blank subtraction.			
<b>21 CFR Part 11 Software Compliance:</b>	TOCTalk Version 4.5 is 21 CFR Part 11 compliant.			
<b>Other Features and Options:</b>	Automatic file management, Automatic shutdown/standby, Exceeds ISO 8245 particulate requirements with optional kit, Flow rate monitoring, Near line monitoring, Preprogrammed Point and click method setup, Priority samples via scheduled interrupt, Programmable Automatic Wakeup, Selectable IC sparge methods, Solids Module, Stirring Option, Text and CD ROM video help			
<b>Principal Applications:</b>	Waste Water, Industrial Waste Effluent, Drinking and Surface Water, Ground Water, Clean-in-Place (CIP) Validation, Sea Water, Brine Solutions			

<b>Official Methods:</b>	EPA 415.1 and 9060A, Standard Method 5310B, EP 2.2.44, ISO 8245, EN 1484, USP 643 (Chapter 24), ASTM D2579, prENV 13370, AOAC 973.47	
<b>Certification:</b>	UL, CSA, and CE; EMC EN 50081-1 and EN 50082-1	
<b>Utility Requirements:</b>	Voltage:	100/120/230 VAC (±10%)
	Frequency:	50/60 Hz (excluding NDIR)
	Power:	1200 VA for Apollo 9000 or Apollo 9000HS, 300 VA for the TN Module
<b>Dimensions (Approximate):</b>	16" (40 cm) W x 23" (61 cm) D x 21" (53 cm) H; 110 lb (50 kg) shipping weight	
<b>TOC Gas Supply:</b>	Zero grade air; Hydrocarbon Free air for TOC applications below 20 ppmC; Balston/Whatman TOC Gas Generator	
<b>TN Gas Supply:</b>	High Purity Oxygen, 99+%	
<b>Gas Pressure:</b>	30 to 35 psi (206.7 to 241.2 kPa)	

### STS-8000 Autosampler

<b>Sampler Changer Type:</b>	XYZ robot with stationary rack design	
<b>Positioning Performance:</b>	Accuracy +/-1 mm in XYZ dimensions; Repeatability +/-0.25 mm in XYZ dimensions.	
<b>Septum Piercing:</b>	Available with septum piercing kit. Has vertical punch strength of 3.8 kg (8.38 lb)	
<b>Rinsing:</b>	Auto-rinsing from sample and/or rinse water via built-in rinse station.	
<b>Rack Selection:</b>	(2) 77 position trays for 25 mL culture tubes (18 x 150 mm); (2) 35 position trays for 40 mL VOA vials (28 X 95 mm)	
<b>Dimensions:</b>	21.1" (53.5 cm) W x 17.2" (43.7 cm) D x 14.6" (37.1 cm) H; 39 lb. (17.7 kg)	
<b>Electrical:</b>	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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