

## Specifications, Utility

<b>Environmental:</b>	Typical laboratory environment to operate the unit is 18° to 30°C, 40 – 70% humidity, free from corrosive, explosive, and volatile vapors.	
<b>Gas:</b>	Zero grade air, hydrocarbon free air for TOC levels below 20 ppmC. Can be supplied from either cylinder or gas generator such as a Balston/Whatman TOC Gas Generator. To assure clean carrier gas is used we suggest using a hydrocarbon trap (p/n 14-1362-000) between gas source and instrument.	
<b>Gas Consumption:</b>	In Standby and Sleep modes:	Unit will use 50 cc per minute to purge NDIR.
	In Ready mode:	Unit will use between 450 to 650 cc per minute.
<b>Regulators:</b>	Uncontaminated 2-stage regulator for above stated gas. Second-stage operation range should be 0-60 psi equipped with outlet for 1/8" Swagelok (brass) nut and ferrule. Recommended to use Balston regulator kit (Tekmar-Dohrmann p/n 080-021) to drop the pressure from 60 psi (exiting the two-stage regulator) to 30 psi (entering the TOC analyzer).	
	When using a gas generator, please check with manufacturer for recommended generator gas pressure requirements. Whatman TOC gas generator, Model 78-40, requires 60 psi of compressed air or better. A Balston regulator kit will be required (Tekmar-Dohrmann p/n 080-021) to drop the pressure from 60 psi (exiting the generator) to 30 psi (entering the TOC analyzer).	
<b>Tubing:</b>	1/8" PTFE tubing or 1/8" OD refrigerant-grade copper tubing. Lengths greater than 15 ft. should be 1/4" OD or larger connected to a short length of 1/8" tubing that connects to the analyzer. Ten feet of 1/8" PTFE tubing is supplied with the instrument.	
<b>Fittings:</b>	Nut and ferrule to connect carrier gas tubing to regulator. One 1/8" Swagelok (brass) nut and ferrule to connect carrier gas tubing to the analyzer is supplied.	
<b>Power:</b>	Apollo 9000/Apollo 9000 HS:	One 120 VAC (+/- 10%) 60 Hz, 1200 VA, 15 amp electrical outlet.
	STS 8000 Autosampler:	One 120 VAC (+/- 10%) 60 Hz, 200 VA, 15 amp electrical outlet.
	Computer	Two electrical outlets (for CPU and monitor)
	Printer (if used):	One electrical outlet.
	<b>Note:</b> All power must be free from line spikes or interference. 220 VAC 50 Hz models are available.	
<b>Bench Space:</b>	Apollo 9000/Apollo 9000 HS:	16"W x 24"D x 21"H.
	STS 8000 Autosampler:	21"W x 17"D x 15"H.
	Typical computer:	18"W x 27"D x 22"H (including keyboard).
	Total recommended bench length is 6 1/2 feet with autosampler and computer. Please allow additional space for printer if used.	

<b>Reagents:</b>	Distilled and/or deionized (DI) laboratory grade water (TOC less than 0.2 ppm).	
	85% phosphoric acid, ACS reagent grade.	
	For a typical one-month supply of 20% phosphoric acid reagent, Tekmar-Dohrmann recommends adding 50 mL of 85% phosphoric acid into 150 mL of DI water.	
<b>Standards:</b>	One 1000 ppmC potassium acid phthalate (KHP, KC8H5O4) TC/TOC standard is supplied with analyzer.	
	Anhydrous sodium carbonate, ACS reagent grade, will be necessary if IC calibration is desired.	
<b>Tools Needed:</b>	7/16" Open-end wrench, Phillips screwdriver set, Slotted screwdriver set, Small needle nose pliers	
<b>PC Requirements:</b>	<b>Minimum</b>	<b>Recommended</b>
Processor:	486DX/66 MHz or better	Intel Pentium or compatible processor
Memory:	16 MB	64 MB
Hard disk:	150 MB of free hard disk space	500 MB of free hard disk space
Display:	VGA or higher resolution	VGA or higher resolution
Drive:	3.5" floppy drive	4 X CD-ROM and 3.5" floppy drive
Other:	Microsoft Mouse and Windows 95	Microsoft Mouse, Windows 95/98/NT, compatible speakers and sound card
<b>Other:</b>	Waste bottle (4 liter) for sample rinse	
	Vials for appropriate autosampler rack (i.e. 40 mL vials)	