



TGA 4000: Site Readiness

Bench Space

Dimensions: 17x 38 x 41 cm (6.7 x 15 x 16.5 in)
Weight: 12kg (16kg with autosampler)

Electrical Requirements:

Power Consumption

TGA 4000	230 Watts Maximum
Computer	500 Watts Maximum
Circulator	1440 Watts Maximum

Power Specifications

TGA 4000	100/115 VAC, 2 Amps or 230 VAC, 1 Amp
Computer	100/115 VAC, 4.6 Amps or 230 VAC, 2.3 Amp
Circulator	120 VAC, 12 Amps or 240 VAC, 7 Amps

Power Outlets

Each system component (TGA 4000, Computer, Printer, etc) requires a separate power outlet. All outlets should share a common earth ground.

This equipment is designed to operate within 10% of the selected line voltage. The supply must be smooth, clean and free of transient voltages over 40 volts.

Earth grounding: less than 1 ohm resistance between the grounds of any 2 components of the system

Gas Requirements:

A Nitrogen balance purge of ~ 40 cc/min. is required. This gas should be clean and dry having minimum purity of 99.995%. Regulator Outlet Pressure **2-3 bar (30-45 psi)**

Sample purge gases can be: dry argon, air, nitrogen or oxygen, with a minimum purity of 99.995%. The regulator shutoff valve should have a 1/4" NPT male thread on the outlet side. Regulator Outlet pressure **2-3 bar (30-45 psi)**

Coolant requirements:

The TGA 4000 **requires** a coolant of one of the following types:

Circulating water: A source of water and a drain are required. Flow rate of 5 l/min required.

Optional Chiller: A liquid circulating device such as the PolyScience Model 9102. The 9102 water circulator does not include the cooling liquid. 50/50 Ethylene Glycol (non automotive grade, Fisher P/N E1774), Distilled Water and Algaecide (N0776059 8 drops per gallon) is required as the cooling media to 15 °C. Minimum temperature control ± 0.1 °C is required.

Coolant temperatures: 15 °C \geq 35 °C

Environmental Requirements:

Laboratory Environment

Temperature range	15 to 40 °C
Humidity	<80% (Non-condensing)

Clean and dust-free

Level, vibration-free work surface

Water Requirements

The TGA 4000 comes equipped with a tap water circulating system. In this configuration tap water or water circulating device (i.e. PolyScience type chiller) must be located conveniently near the STA 6000. The coolant tubes provided (2) are approximately 5 feet long (1.5 meters) having an OD of 12 mm (0.47 in) and ID of 8 mm (0.31 in). If additional tubing length is required, it is the responsibility of the customer to provide the additional tubing.