

Thermal Analysis

Simultaneous Thermal Analyzers 6000-8000 Specifications



STA 8000

The STA 6000 and STA 8000 Simultaneous Thermal Analyzer (STA) is based on the proven performance and reliability of the top loading balance of the TGA 4000 combined with improved thermocouple detection technology. They are capable of giving excellent temperature and calorimetric data over a wide temperature range, and the ability to simultaneously measure weight change and heat flow offers an extra dimension to interpret and verify results.

	STA 6000	STA 8000
Sensor	Pure platinum pan holder and reference ring	Separate platforms for sample and reference
Furnace design	Vertical	Vertical
Balance design	Top loading, single beam	Top loading, single beam
Balance resolution	0.2 µg	0.2 µg
Balance measurement range	Up to 1500 mg	Up to 1500 mg
Temperature range	15 °C to 1000 °C	15 °C to 1600 °C
Heating rate	Ambient to 1000 °C 0.1 to 100 °C/min	Ambient to 1000 °C: 0.1 to 100 °C/min 1000 to 1600 °C: 0.1 to 25 °C/min
Cooling rates	From 1000 °C to 30 °C Under 10 minutes	From 1600 °C to 100 °C Under 35 minutes (cooling water at 5 °C)

STA 6000**STA 8000**

Temperature calibration	Metal standards such as Indium and Silver	Metal standards such as Indium, Gold and Palladium
Temperature accuracy/ reproducibility	±0.5 °C	Ambient to 1000°C ±0.5 °C 1000 °C to 1600 °C ±1.0 °C
Calorimetric accuracy/ reproducibility	±2%	Ambient to 1600 °C ±5%
Balance precision	±0.02%	±0.02%
Thermocouples	PT-PT/Rh (Type R)	PT-PT/Rh (Type R)
Sample pans	Alumina 180 µL	Alumina 180 µL
Dimensions (HxWxD)	17 x 38 x 41 cm 6.7 x 15 x 16.5 in	21 x 38 x 41 cm 8.3 x 15 x 16.5 in
Weight	12-16 kg	14-17 kg
Instrument control	Pyris™ software	Pyris software
Accessories		
Mass flow control and switch	Included	Included
Autosampler	Optional, 45-position	N/A
Transparent cover configurations	Included with autosampler Optional for standard configurations	Optional for standard configurations
Hyphenated techniques	Combine with MS or IR analyzers	N/A
Certificates/compliance/ quality assurance	Developed under ISO 9001. Designed and tested to be in compliance with the legal requirements for laboratory analytical instruments	Developed under ISO 9001. Designed and tested to be in compliance with the legal requirements for laboratory analytical instruments

The specified performance applies to running samples under a condition where the instrument not the sample is the limiting source of uncertainty.