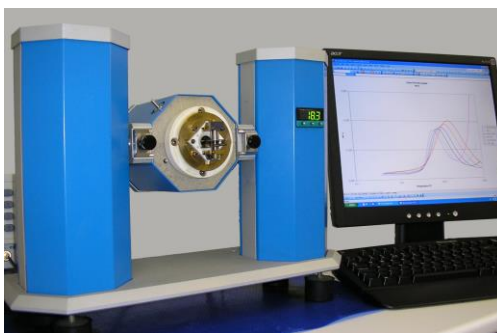




## Dielectric Spectrometer (DETA)

Lacerta Technology offers the most flexible, cost effective DiElectric Thermal Analyser available today. Its features include:

- Low Thermal Mass assembly
- Highly efficient and fast cooling available
- Start Temperatures from -190°C
- Cup Electrodes for liquids
- Unique rotating head design
- High performance to cost ratio
- Unparalleled flexibility
- Lowest temperature range
- Advanced control via laboratory software



### Specifications

<b>Rotational Analytical Head:</b>	Vertically up, Vertical down, Horizontal (forward) & any angle in between
<b>Environmental Conditioning:</b>	Air oven (standard)
<b>Temperature Range:</b>	Standard Furnace -190°C to 350°C
<b>Heating and Cooling Rates:</b> (standard air oven)	Heating & Cooling rate 0 to 20°C/min (mid range) Isothermal & automatic Step-Isothermal operation
<b>Coolant Consumption:</b>	-100°C 5 minutes 0.3 L Liquid N <sub>2</sub> -150°C 10 minutes <1 L Liquid N <sub>2</sub> -190°C 15 minutes 1 L Liquid N <sub>2</sub> (Requires Liquid Nitrogen Cryo option)
<b>Frequencies:</b>	Range: 0.012 kHz to 200kHz Max. Number Up to 100 per experiment
<b>Voltage range AC:</b>	0 to 1.275V in 5mV steps
<b>Voltage range DC:</b>	2V internal and 30V external
<b>Tan δ resolution:</b>	0.0001
<b>Capacitance range:</b>	10pF < sample capacitance < 10 μF
<b>Dynamic Impedance range:</b>	10 <sup>-5</sup> Ω to 10 <sup>5</sup> kΩ
<b>Electrode Types:</b>	10mm, 33mm, 40mm, Parallel plates 40 mm Cup Titanium, low mass design
<b>Gap Range:</b>	0 to 5mm
<b>Gap measurement:</b>	Sample measurement
<b>Instrument Footprint:</b>	170mm depth x 475mm width x 340mm height
<b>Instrument Weight</b>	15 kg
<b>Optical Window:</b>	Standard 45mm diameter borosilicate Optional quartz window available Optional lateral windows or apertures available
<b>Connections:</b>	Electrical 85 to 264V AC, 600VA Interface 1 USB input Purge Gases via 6mm purge inlets Cryogenic Fluids via 6mm inlet ports