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ATR

Low Temp Golden Gate™ ATR

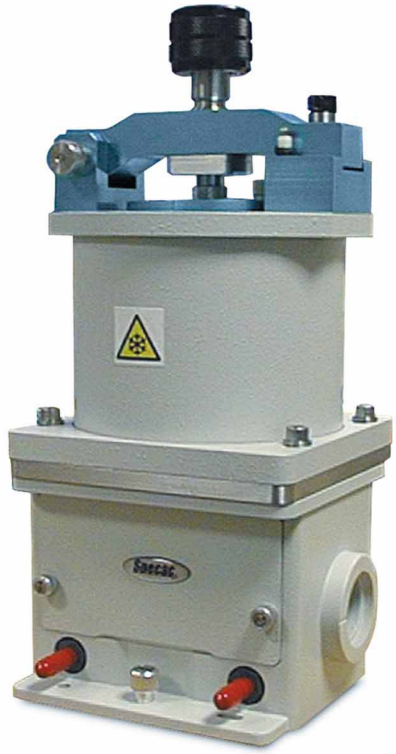
A variable temperature diamond ATR system for FTIR measurement of solids and liquids at ambient to near liquid nitrogen temperatures.

The Golden Gate™ low temperature diamond ATR system is the first ATR accessory to provide high performance ATR measuremensts down to near liquid nitrogen temperature.

The system uses a thermally insulated copper and stainless steel dewar in conjunction with an integral heater to provide continuous temperature control across the working range. The high thermal conductivity of the diamond crystal provides rapid temperature stabilization, accurate temperature measurement, and avoids temperature graidents across the sample.

The diamond ATR crystal is high temperature metal bonded into a tungsten carbide support disk and the top-plate is hard-anodized to make the accessory chemically resistant and capable of withstanding the pressures required for optimum crystal and sample contact. Pressure is applied to the sample using the quick lock and release bridge from the proven Golden Gate™ diamond ATR system. This clamping device allows rapid sample throughput and reproducible solid sampling. It also has a buit-in torque limiter to control the loads applied to the diamond.

The Golden Gate™ low temperature diamond ATR is constructed in such a way that the crystal mounting is under a constant load. This ensures that the diamond is kept in constant optical alignment, negating the effects of thermal expansion and contraction. The upper body of the system is separated from the top-plate by a replaceable, thermally conducting spacer, avoiding the need for sealants that may contaminate the diamond surface. The system is easily and quickly taken apart for cleaning.



Key Sampling Benefits

- Continuous control of sample temperature from near liquid nitrogen temperatures to 80°C
- High thermal conductivity provides rapid cooling and temperature stabilization
- Proven, strong clamping device, based on the Golden Gate™ Diamond ATR, allows rapid, reproducible sample throughput
- Thermally insulated copper and stainless steel dewar allows for the use of liquid nitrogen, dry ice, or salt and water mixtures

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Ordering Information

GS10592 **Golden Gate™ Low Temperature Diamond ATR System**

Includes an optics unit with a choice of ZnSe or KRS-5 lenses, low temperature diamond top-plate and temperature controller, sample clamping system with integrated torque limiter, Benchmark™ baseplate and purge bellows.

Please specify Spectrometer make and model, required voltage and country of use.

The temperature controller is supplied without any computer connection, if required please see the options below.

GS10590 **Golden Gate™ Low Temperature Diamind ATR Top-plate with Temperature Controller Only**

Includes sample clamping system with integrated torque limiter.

Please specify required voltage and country of use.

The temperature controller is supplied without any computer connection, if required please see the options below.

Spares and Options

GS10594 High thermal transfer gaskets (pkt 5)

GS28000 RS232 Connection kit

GS28001 USB Connection kit

GS28002 RS485 Connection kit

SPECAC LTD.,
River House 97 Cray Avenue, Orpington,
Kent. BR5 4HE UK
T: +44 (0) 1689 873134 F: +44 (0) 1689 878527
E: sales@specac.co.uk Registered in England No. 01008689

SPECAC INC.
414 Commerce Drive, #175
Fort Washington, PA 19034, USA
T: +1 866 726 1126
E: sales@specac.com