

Reaction Cell Golden Gate® ATR

The Golden Gate® in-situ reaction cell allows in-compartment reaction monitoring over a broad range of conditions. It has a built-in heated pressure vessel that enables monitoring of liquid reactants under high temperature or pressure by ATR spectroscopy.

Features & Benefits

- In-situ chemical analysis under extreme conditions**
 With a choice of Stainless Steel or Hastelloy for the cell body, the cell is able to handle many types of process chemistries and can contain static or flowing liquids at up to 200 °C and 193 bar g (2800 psi) of pressure.
- Optional stirring mechanism**
 The variable-speed stirrer can be used to conduct blending and mixing analyses with reactants in the chamber. The stirrer has a sapphire shaft and pressure-energised seals.
- Robust diamond ATR element**
 The use of a monolithic diamond ATR ensures compatibility with a wide range of chemical processes due to the inherent chemical and physical resistance of diamond.
- Retrofits directly to existing Golden Gate® units**
 The Reaction Cell can be ordered as a standalone part for your existing Golden Gate or you can order the Reaction cell together with the optical unit for a complete accessory.



Ordering information

Golden Gate® In-Situ Reaction Cell GS10525

Includes Golden Gate® optical unit with choice of KRS-5 or ZnSe focusing lenses, Reaction Cell top-plate with 4000 series temperature controller and a Benchmark™ baseplate.

Golden Gate® In-Situ Reaction Cell top-plate GS10507

Includes Reaction Cell top-plate with 4000 series temperature controller and a Benchmark™ baseplate.

Stirring unit for Reaction Cell GS10513

Includes pressure cap and controller.

Note: please specify the make and model of your spectrometer, choice of stainless-steel or hastelloy body, and country of use.

Please note: Illustrations, descriptions and specifications quoted in this document were correct at the time of publication. Specac reserves the right to update, amend, or withdraw this information at any time as part of our continuous product portfolio management.

Reaction Cell Specifications

Body material	Stainless Steel or Hastelloy
Internal volume	24 ml (reduced to 22 ml by addition of stirrer)
Built-in ATR element	Monolithic diamond
Maximum temperature	200 °C
Maximum pressure	193 bar (2800 psi)
Sample connections	1/8" Swagelok™

Note that a flowing coolant is required to maintain the temperature of the cell and prevent overheating. Specac can supply suitable circulators.

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Reach out to us any time for more information on the application described in the text above or visit our website specac.com to read more and make an enquiry.