

Flexcell™

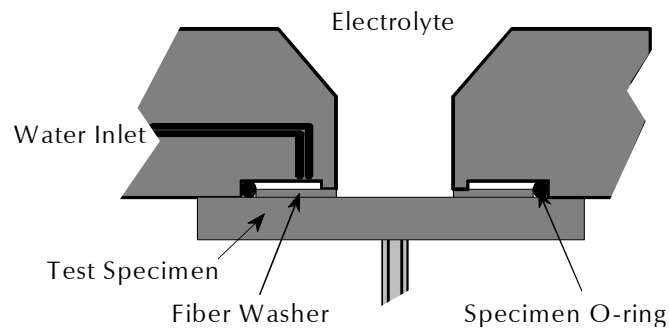


The Gamry Instruments Flexcell™ is a versatile electrochemical cell designed to counteract a problem that plagues most cells -- crevice corrosion around the specimen seal. First popularized by Avesta Steel, the cell utilizes a flooded gasket seal design to inhibit crevice corrosion between the sample and its holder. This simple yet elegant design results in an easy to use, reliable, crevice-free system.

The main body of the cell is a two piece construction that allows for easy handling and assembly. Specimens are mounted facing upwards, allowing for close but unobtrusive placement of a temperature probe and a reference electrode. The Flexcell can be heated externally with a Heating Mantle, internally with insertion heaters, or with a Recirculating Bath. A glass or Teflon-coated copper coil is supplied for temperature control of the cell using a Recirculating Bath.

When used in conjunction with CPT110™ Critical Pitting Temperature Software and a TDC2™ Temperature Controller, the Flexcell becomes part of a totally automated tool for the determination of Critical Pitting Temperature (ASTM G 150). In the tradition of Gamry, the Flexcell can be used out of the box or adapted to meet your needs.

Cross Section View of the Flooded Gasket Seal



Specifications

Unless otherwise specified, these specifications refer to the flushed port configuration.

Vessel

| | |
|----------------|--|
| Volume | 1000 ml (minimum) 1300 ml (maximum) |
| Inner diameter | 10.0 cm (nominal) |

Metal Specimen

| | |
|--------------|--|
| Active Area | 0.775 square inches (nominal) 5.0 cm ² (nominal) |
| Minimum Size | 4.0 cm x 4.0 cm 4.0 cm diameter (circular) |
| Maximum Size | 7.5 cm x any length or 11.0 cm x 11.0 cm (rectangular) 11.0 cm diameter (circular) |

Temperature Range

| | |
|-----------|----------------------------------|
| Operating | -25 °C to 140 °C |
| Storage | -40 °C to 180 °C (not assembled) |

Chemical Compatibility

| | |
|----------------------|---|
| Wetted Materials | Pyrex, Teflon, Filter Paper |
| Non-Wetted Materials | Above, plus stainless steel, Viton, silicone rubber |

Parts Supplied

The CPT Flexcell is shipped with all the accessories and manuals required to run crevice free tests except for these items which are subject to unique customer requirements:

- No metal samples are supplied.
- A reference electrode is not included.

Accessories

For ASTM G 150, "Electrochemical Critical Pitting Temperature Testing of Stainless Steels", the Flexcell should be used with the TDC2 Temperature Controller and the Heating Mantle (Part No. 990-147/8). For convenient and effective stirring of the Flexcell, use the Flexcell Stirring Rod Kit (Part No. 990-117) and Stirring Motor Kit (Part No. 990-152/153).

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