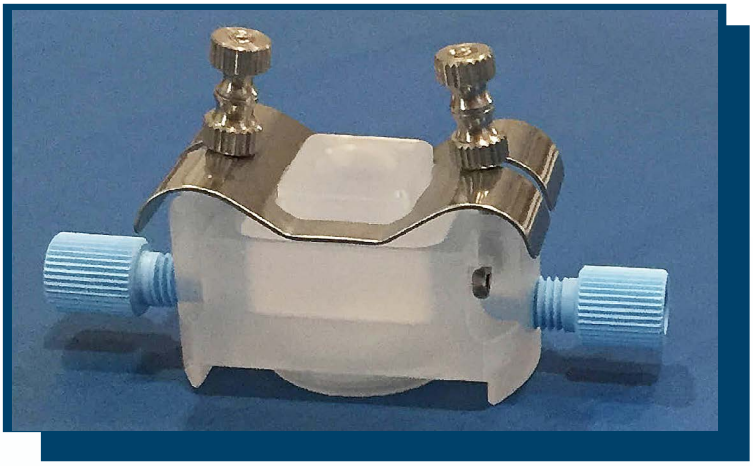
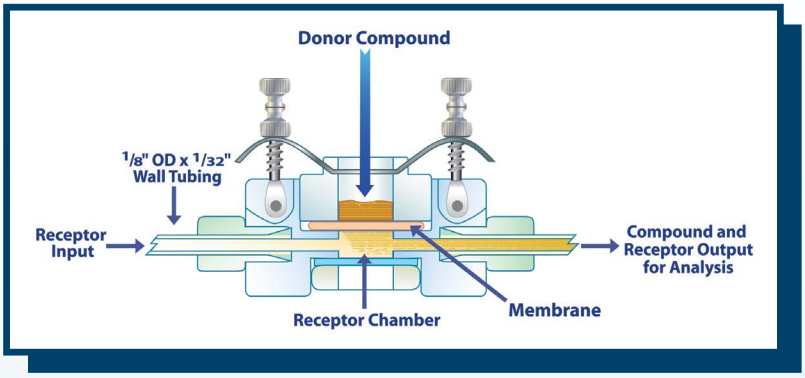
PermeGear
...the standard for your lab.

In-Line Cells



In-Line Cell



PermeGear In-Line Cells may be thought of as flow type Franz Cells with very small receptor volumes. In-Line Cells locate the membrane of interest in the horizontal plane and have donor chambers open to the air although occluded donor chambers are available.

In-Line Cells were designed to replace the Bronaugh Cell and are available in orifice diameters from 5mm to 15mm. They are made from Chlorotrifluoroethylene (CTFE). In-Line Cells have a unique clamping system which features user preset, repeatable, secure clamping of tissue or membranes. Clamping is achieved with a stainless steel spring that applies pressure preset by the user to the upper surface of the donor compartment for leakproof clamping. The cell design locates the orifice diameters within .1mm of each other. HPLC connectors are used to connect the cells to 1/16 ID tubing. Stirring effects within the cells are easily checked with our unique Twin-Flow Conversion System.

H1C Stirrer pictured above with 2 In-Line Cells

ILC07 Automated System with seven In-Line Cells

The most common sizes are 5mm, 9mm, and 11.28mm. Standard In-Line Cells are supplied with open donor chambers which are 14mm high. In-Line Cells are also available with volatile donor chambers that have septum caps. The volatile donor chamber height not including the septum or the cap is 26mm. The septum caps are the same on all In-Line Cells and the inner diameter at the top of all volatile donor chambers is 9mm. The orifice diameter at the clamping surface adjacent to the membrane is the same as the In-Line Cell body supplied with the volatile donor chamber.

In-Line Cells are usually used in our ILC07 Automated System, but they can be used with our Twin-Flow Conversion System, or individually, as either flow type or static diffusion cells. Our Twin-Flow unit allows two In-Line Cells to be used with a Side-Bi-Side Cell H-Series stirrer. The Twin-Flow unit maintains the desired temperature in the cells when connected to a source of flowing temperature controlled water.

In-Line Cells & Components – "xx" denotes orifice diameter

- 1K001-XX In-Line Cell 5mm-12mm
- 1K001-XX-VD In-Line Cell w volatile compound donor chamber
- 1KM01-XX In-Line Cell 5mm-12mm with interchangeable membrane support

Cell Extra Components – "xx" denotes orifice diameter

- 1K012-XX Membrane Support
- 1K015-XX Donor Chamber
- 1K016-XX Donor Chamber Cap
- 1KS02-XX Volatile Compound Donor Chamber