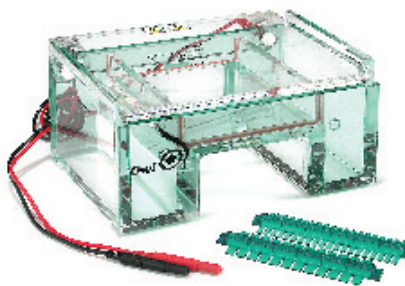


Using the System

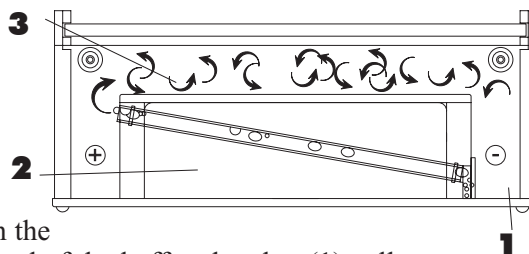
SECTION 3

Model B3 Buffer Puffer™ Self Recirculation System

The Model B3 Buffer Puffer™ Self Recirculation System has a unique built in recirculating system designed to self recirculate buffer. Bubbles are collected at the cathode end of the unit and shunted through a conduit tube from the cathode end of the buffer chamber to the anode end of the buffer chamber. The bubbles displace buffer creating an effective recirculation within the chamber.



The Buffer Puffer™ self recirculating system reduces formation of pH gradients for high resolution and uniform, reproducible results. The self contained recirculation system requires no external pumps, tubing or stir bars. As shown in the diagram, a trap at the cathode end of the buffer chamber (1) collects the hydrogen bubbles produced at the electrode during electrophoresis. The bubbles are then shunted into a conduit tube (2) to the anode end of the chamber. This flow of bubbles displaces buffer (3) to create an internal recirculation system.



Instructions for Buffer Puffer™:

Priming the Unit

Fill the Buffer Puffer chamber with enough buffer to fill both compartments, and allow it to stand for about 15 minutes prior to running. Fill the chamber at the cathode end (black electrode) first. This will flush out trapped air in the hydrogen collector and recirculation tube.

Priming the unit is most important when using buffers of low ionic strength (like TAE or NaPO₄). This process minimizes the electro-static repulsion between the hydrogen gas bubbles and the recirculation tube's surface. Neglecting this step may result in decreased efficiency of the recirculation system. Refer to General Instructions section of this manual for use following this priming step.