



FTC-800 Automated Flow-through Diffusion Cell System

Flow-through Diffusion is designed to simulate the process of drug permeation through a biological or synthetic barrier. These in vitro permeation tests (IVPT) can be used to evaluate API permeation performance in a variety of topical dosage forms including semi-solids, ointments, gels, creams, oils, liquids, transdermal patches and more.

The FTC-800 Automated Flow-through Diffusion Cell system is a USP <1724> compliant tool that can accommodate up to eight dry heat flow-through cells, offering scalability and flexibility to meet diverse research needs. The ultra-smooth, precision syringe pumping system assures a steady, pulseless flow which reduces variabilities that other pumping methods may introduce. The FTC-800 consists of a tiltable flow-through cell holder, a dual eight-channel syringe-based autosampler-controller, and sample collector. Our patented high-precision PEEK flow-through cells are designed to ensure the skin is smooth and taut throughout the test run.

- Complies with USP <1724>
- Dry heat flow-through cell technology
- Precision-flow syringe pump system
- Programmable flow rates from 0.1 – 4.0 mL
- Individual cell temperature monitoring
- Bubble-free manual tilt manifold prevents bubble formation
- A variety of PEEK flow-through cell options

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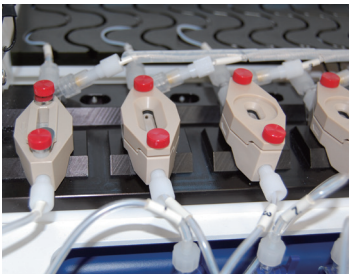
Applications



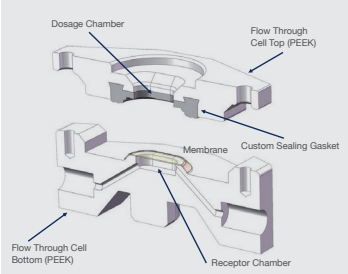
Cell holder system with 8 diffusion cells



Cell holder lifted up to purge air bubbles



2 types of cells – membrane cell, skin cell (1 cm², 0.5 cm²)

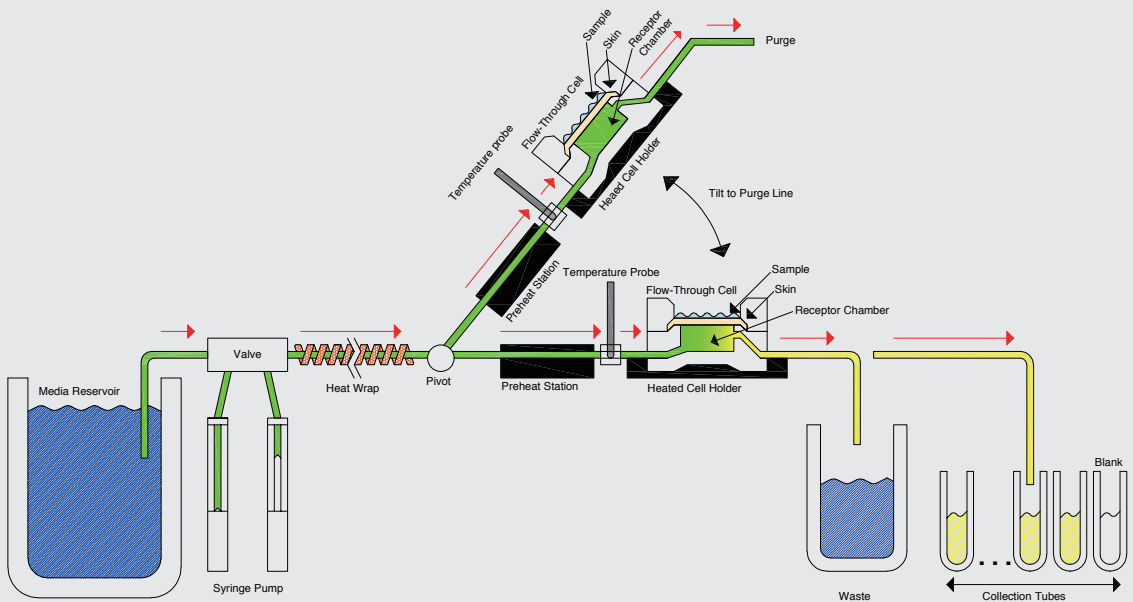


FTC-800 Cell Breakdown

FTC-800 Flow-through System

FTC-800	Standard
Flow-through cells	Up to 8
Cell material	PEEK
Cell types	Skin, membrane
Temperature	Ambient to 45 °C
Programmable flow rate	0.1-4 mL
Volumetric accuracy	0.1 mL
Built-in Printer	Included
User interface	Color touchscreen
Dimensions (Width x Depth x Height)	94 cm x 90 cm x 56 cm
Power	110 V AC, 50/60 Hz 220 V AC, 50/60 Hz

FTC-800 Flow Diagram



The offset precision dual-syringe pump pulls media from the external reservoir, pushes it through heated lines into the preheat station, then into the heated flow-through cell, and finally out to waste and/or into collection tubes, all with a smooth, uniform, pulseless flow for the duration of the test run. Receptor media temperature is closely monitored at the inlet of each flow-through cell.