

PERMETRO System



Logan PERMETRO System:

To fill the missing link between the dissolution tests and BE studies

- For In-Vitro permeation studies
- To test drug permeation completely animal cruelty free
- Drug permeation test by linking up with USP apparatus 1, 2, 3, 4, 7.
- To compare the permeation rate between the original products and generic products
- On-line HPLC analysis
- Suggested permeation test before BE studies

PERMETRO Specifications

Main Drive Unit: PERMETRO w/ System Controller (402-0010)

PERMETRO Cell Position: 8
PERMETRO Cell Driver Position: 8
PERMETRO Cell Size: 5 ml or 10 ml
PERMETRO Cell Orifice: 35 mm dia
PERMETRO Cell Permeation Area: 25 mm dia.
Rotation Speed: 600 RPM, Accuracy $\pm 1\%$
Temp. Control: 25-45° Celsius, Accuracy $\pm 0.3^\circ$ Celsius
Cell Heater: 200 Watts
Dissolution Sample Transfer Pump: 10 ml

Permeation Sample Transfer Pump: 10 ml
Media Mixing Station (M-800BE)
Water Bath: Plastic, Seamless Construction
Heater: 900 Watts
Temp. Control: 25-45° Celsius, Accuracy $\pm 0.1^\circ$ Celsius
Size: 68 x 67 x 56 (L x W x H CM)
Weight: 52 KG
Voltage: 220V/50 HZ

PERMETRO 800

Logan Instrument's new PERMETRO system is a dissolution and permeation all-in-one, all-automated testing system. The PERMETRO system delivers dissolution and permeation results simultaneously.

PERMETRO system samples dissolution solution continuously through the entire dissolution cycle, recreating the flow of drug release from the stomach to the intestines using a man-made intestinal membrane, providing a dynamic absorption profile for permeation through the dissolution cycle, closely mimicking the in-vivo drug absorption in intestines. The automation of the new PERMETRO system makes it not only convenient and timesaving, but also opens up many potential applications. The PERMETRO works seamlessly with all USP dissolution apparatus 1, 2, 3, 4....



PERMETRO 3700



Model No.	Configuration	Ref.
PERMETRO 800	USP I & II – 8 + PERMETRO + Collector	Water bath system
PERMETRO 1200	USP I & II – 12 + PERMETRO + Collector	Water bath system
PERMETRO 3700	USP III + PERMETRO + Collector	Water bath system
PERMETRO 4000	USP IV + PERMETRO + Collector	Water bath system
PERMETRO 4000DH	USP IV DH + PERMETRO + Collector	Dry heat system

During the dissolution/permeation process, the dissolution and permeation samples are collected at the same time. The samples can be collected into glass tubes/vials for offline analysis or sent to auto-sampler for online HPLC injection.

A recent study using Logan PERMETRO system has demonstrated an improvement in IVIV correlation for drug Metronidazole. Other potential opportunities include IVIVC, bioequivalence (BE) and the understanding of the interferences of food or drugs on drug absorption.

Logan's Dissolution/PERMETRO system is the most advanced in the pharmaceutical industry, opening many new opportunities for pharmaceutical development.