

Specifications for Langmuir Trough

Dimensions of liquid footprint (without barrier)

Length	42.0 cm
Width	8.9 cm
Area	374 cm ²
Depth (no meniscus)	0.7 cm

With barrier

Usable area range (no x-rays)	35-335 cm ²
Usable area range (x-rays)	120-335 cm ²

Volume (no meniscus)	260 cm ³
Volume (2.4 mm meniscus)	350 cm ³ (Max value - recommended for measurements)

Weight

Component	Weight (lbs)
Spacer blocks (4)	28
Slotted base plate	21
Trough	55
Box (walls only)	23
Lid	8
TOTAL	135

Barrier Drive

- Barrier speed range: <0.1 mm/s - 1.0 mm/s
- Lead screw pitch: 1.25 mm per rotation
- Position given by closed-loop readback of potentiometer
- Both flat and notched barriers are available

Control Software

Control software is Nima 5.16.

This controls all functions relating to the barrier drive and pressure sensor.

Temperature Control of Sample

Two-stage temperature control. A Neslab circulator maintains base block temperature. A Lakeshore unit controls subphase temperature by active heating. The Lakeshore control loop uses the measured subphase temperature as its input.

Typical temperature range	25 - 40 Celcius
Temperature stability	±0.1 Celsius