

Fluid Cell Lite Portless Fluid Dish Accessory for the MFP-3D™ AFM

The Fluid Cell Lite is an economical fluid imaging accessory. The portless fluid dish helps prevent accidental leakage and is ideal for multi-user AFM facilities where each user can have their own cell and avoid cross-contamination.

Easy to Use Liquid Imaging Cell

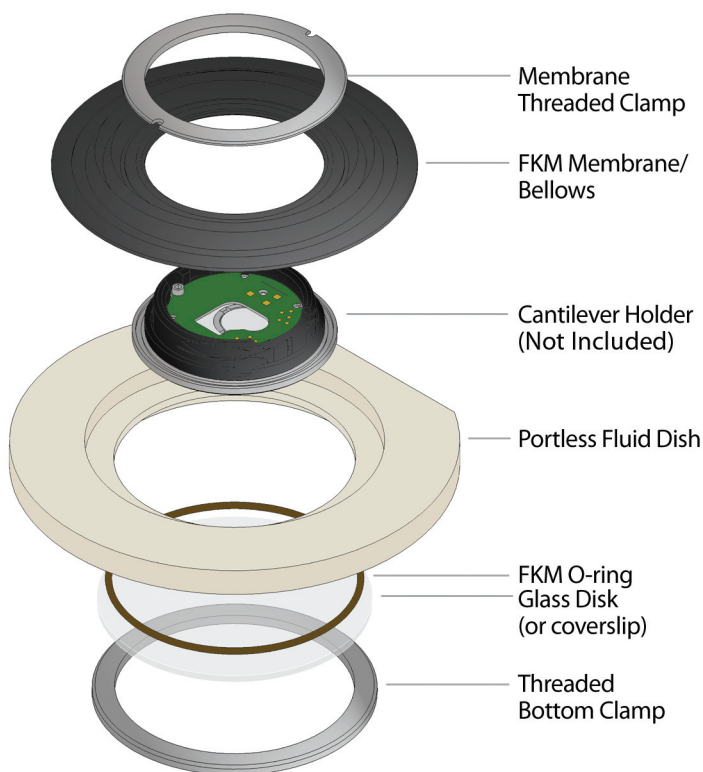
Fluid Cell Lite provides liquid imaging capabilities with an evaporation shield. The portless fluid dish is designed to accept a 35mm diameter x 1mm thick glass sample mounting dish and includes a membrane that mates to the standard MFP-3D cantilever holder. The membrane serves as an evaporation shield while allowing easy removal of the scan head for cantilever exchange. This accessory accommodates a larger volume of liquid compared to the droplet technique. Since there are no ports to be plugged, accidental leakage is minimized. The dish is made of PEEK™ for chemical resistance and the O-rings are FKM (Viton® equivalent) which prevent cross-contamination to the sample. Optional silicone membranes are also available.

Features/Benefits

- Ideal, economical fluid cell for multi-user facilities where each user can have their own dedicated cell.
- Portless dish helps prevent accidental spills.
- Also accommodates glass cover slips and adapters (included).
- Inert material construction of PEEK and FKM eliminates cross-contamination to the sample.



Portless fluid dish.



Schematic of Fluid Cell Lite assembly.

A Suite of Fluid Imaging Accessories

Fluid Cell Lite is one in a suite of fluid environmental accessories that can be used with the MFP-3D AFM to meet your experimental needs. Please see the separate data sheets for more information on these options.

Closed Fluid Cell

This accessory allows fluid imaging in a completely sealed and closed environment. The fluid cell includes ten inlet/outlet ports for fluid and gas exchange. It can also be operated in an open configuration where a soft seal membrane is used to minimize evaporation and contamination.

BioHeater™

This accessory includes the Closed Fluid Cell plus added heating capability, allowing heating of fluids to 80°C in a completely sealed and closed environment. Requires the Environmental Controller (sold separately).

Petri Dish Holder and Heater

The Petri Dish Holder allows cell samples to be cultured and imaged in Petri dishes. The Petri Dish Heater adds additional sample heating functionality from ambient to 45°C. Heater requires Environmental Controller (sold separately).

Specifications

Fluid Cell Lite

Model CCELL-LITE

The Fluid Cell Lite is packaged in a convenient storage box and includes the following items for installation and imaging:

- Portless fluid dish 1
- 35mm x 1mm glass disk 3
- FKM membrane/ bellows 1
- Membrane threaded clamp 1
- 25mm cover slip holder* 1
- Threaded bottom clamp 1
- FKM O-ring 1
- Spanner wrench 1

* Not pictured on front page schematic

Bottom optical access

Sample size

- 25mm maximum; up to 2mm thickness.
- 10mm sample travel within cell when open.

Dish volume up to 2ml

Cleaning

- Easy and complete disassembly
- Autoclavable

Materials

- Portless dish: PEEK
- Membrane: FKM (Viton equivalent)



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