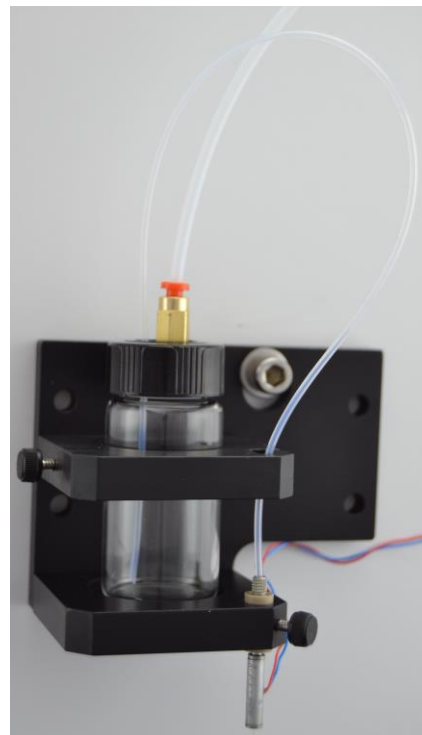


## Room Temperature Printhead

### Product Description

The PH-47 is a drop-on-demand printhead that operates at room temperature. It has a glass reservoir, PTFE tubing, and PEEK fittings to interconnect with the dispensing device. Fluid can be added to the reservoir without removing the printhead assembly, and unused fluid can be recovered, or stored in the glass reservoir. An optional stirring module is available, for use with suspensions, such as nano-metals, that may settle.

A broad range of materials can be dispensed using the PH-47, including bioactive, optically active, sensor, and other materials. Drop volumes ranging from 5 pL to as high as 0.5 nL have been dispensed.



### Standard Features

- All parts cleanable / reusable.
- Large 20 mL capacity removable glass reservoir that can be used for off-line fluid storage / refrigeration.
- Unused fluid recoverable; 1 mL minimum load volume.
- Compatible with Jetlab<sup>®</sup> II, and Jetlab<sup>®</sup> 4 family.

### Available Options

- MJ-AT devices available in orifice diameters 10-80 $\mu$ m.
- Solid-state magnetic stirring module.

## Ordering Information

- PH-47** Room temperature drop-on-demand printhead. Includes one glass reservoir.
- PH-47-STIR** STIR for inductive drive magnetic stirrer option, 130 -1,000 rpm.
- MJ-AT-01-xxx** Low-temperature device with MINSTAC threaded fluid fitting, xxx denotes orifice diameter in microns.
- C-04** Five (5) 20 mL capacity glass reservoirs with caps.
- C-04a** C-04 plus one set of replacement tubing & fittings.

## Addition Information

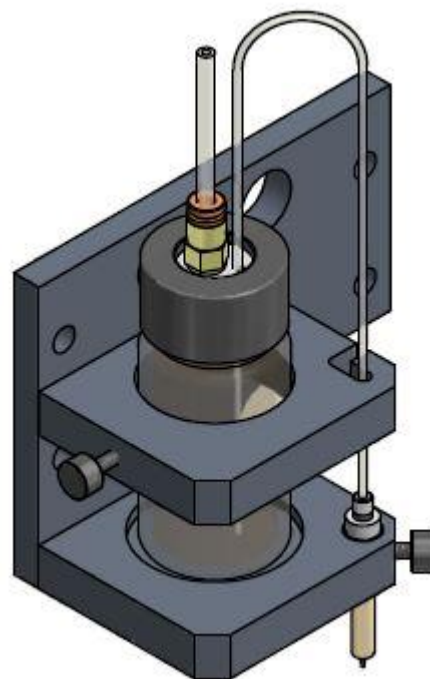
Available at [microfab.com](http://microfab.com)

- Drawings with dimensions
- Equipment selection guide
- Integration Guide
- Cleaning Guide

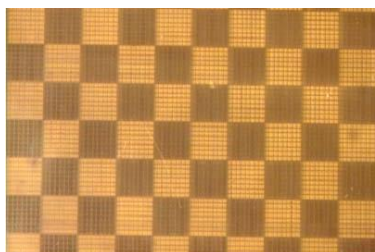
## Support Equipment

The PH-47 may be combined with the following components and subsystems to create a functional subsystem.

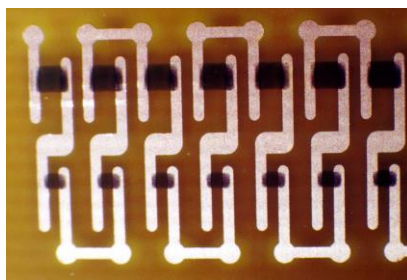
- CT-M5-01** JetDrive™ V controller, including command set and stand-alone control program. Includes built in strobe delay. Level 02 firmware (complex waveforms) included.
- CT-PT-21** Pressure / Thermal Controller with one manual pneumatic channel.
- CT-PT-A1** Electronic Pressure Controller and Pressure Mode Selector, single channel.
- CM-VS-01** Basic Optics System: CCD camera, power supply,



Organic electronic backplane for displays.



Conductive Polymer Resistors, <math><200\Omega/\text{sq}</math>, ~1mm long.



1mm diameter biosorbable polymer nerve regeneration conduits.

