



mitos

standard microfluidic
products

p-pump

pulseless liquid flow and
precise pressure control



Innovators in microfluidic solutions

Why choose the Mitos P-Pump from Dolomite?

Dolomite provides a broad range of user-friendly pumps, specifically designed to manipulate fluids within microfluidic systems. The Mitos P-Pump is a pressure pump providing pulseless liquid flow. Thanks to its unique technology, the Mitos P-Pump offers huge advantages over traditional syringe pumps such as fast response time.

Features and benefits

The Mitos P-Pump (Part No. 3200016) features an innovative pumping technology providing **stable** and **pulseless flow** even at very low flow rates.

Operating over a **wide pressure range** of **0 – 10bar**, the Mitos P-Pump offers a flexible solution for microfluidic systems operating from nl/min to ml/min and is suitable for use with viscous liquids.

The design features a lockable **pressure chamber**, which is easy to access and accommodates a wide range of fluid vessels. It has a capacity for fluid samples from 100µl to 30ml allowing longer experimental runs. The Mitos P-Pump uses fluid directly from your chosen vial **reducing sample waste**.

The Mitos P-Pump works with laboratory Nitrogen or Argon supply, gas bottle or compressor, making set-up **quick and easy**. Users can easily control and change the settings of the pump via a display and **intuitive twist-and-click knob**.

- Precise pressure control down to 10mbar
- Excellent accuracy and response time
- Optional remote chamber with 250ml reservoir
- Integrates with Dolomite Flow Sensors
- Excellent chemical compatibility
- Efficient: eliminates dead volume and sample waste
- Flow conditions can be changed quickly and easily
- Free PC software including LabVIEW™ drivers

Applications

Quick and easy to use, the Mitos P-Pump benefits a wide range of application areas including cell manipulation, microreactions and droplet formation.

Application example - droplet formation

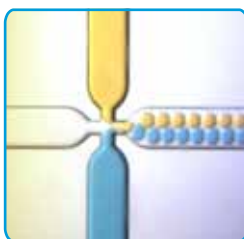
The Mitos P-Pump is ideal for microfluidic systems where a highly stable flow is required for applications such as droplet formation.

In combination with the Mitos Droplet Junction Chip it enables the generation of > 10,000 droplets per second with extremely consistent diameters (monodispersed).

Furthermore, its innovative pulseless pumping technology combined with flow resistors offers the user precise control over both droplet size and production rate.

The range of Mitos P-Pump accessories includes:

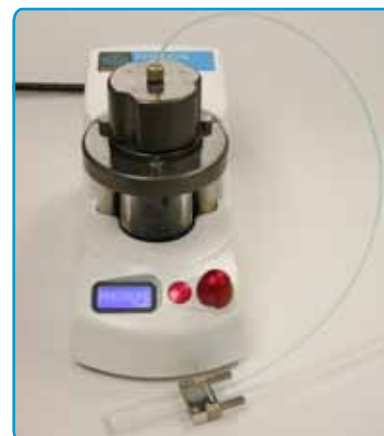
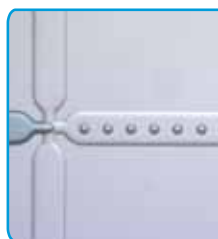
Mitos P-Pump Vessel Holder Kit	3200017
Mitos P-Pump Flow Resistors	3200028-32
Mitos P-Pump Flow Starter Kit	3200033
Mitos P-Pump Pneumatic Starter Kit	3200034
Mitos 3-way Chamber Lid	3200044
Mitos 3-way Vessel Holder Kit	3200045



Left: Mitos P-Pump with 3-way Chamber Lid and 3-way Vessel Holder

Above: Droplet formation using the Mitos P-Pump and Mitos Droplet Chip

Right: Mitos P-Pump connected to a Mitos Droplet Chip



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ISO 9001:2008 certified



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