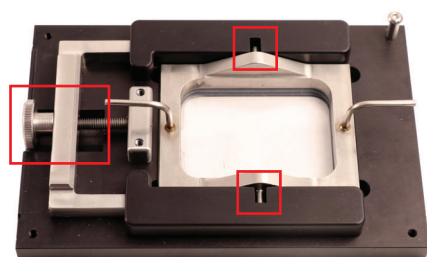


## 64mm x 50mm Flow-cell Imaging Chamber

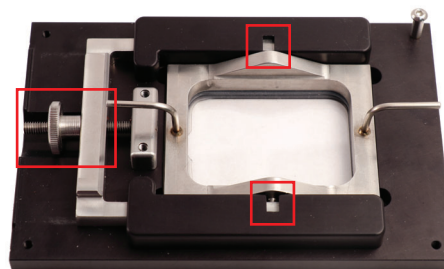
The Bioptechs 64 x 50mm Flow cell imaging chamber a non heating, parallel plate flow cell where cells are grown on a 64x50mm glass coverslip. This coverslip is then incorporated into a perfusable fluid optical cavity that is compatible with all modes of microscopy. This Optical Cavity is secured into a fixture on the stage of the microscope where it can be perfused with media or remain static. Media that comes into one of the ports on the side of the chamber, emerges in a fluid optical path where the media is precisely directed over the cells. The media is collected within the optical cavity and directed out of the chamber on the other side. This chamber is designed to accomodate 0.25 to 1mm thick internal gaskets. Fluid access to this flow channel is made through two 14-gauge needle stock tubes protruding from the top of the perfusion device. These tubes provide fluid connection to two perfusion holes in the Microaqueduct slide.

### Assembly

Place the coverslip with cells on top surface of 64x50mm coverslip (#5) into the Chamber Base / Well Plate (#6). Locate the inner perfusion gasket (#4) and place ontop of coverslip (#5) while in chamber base. Place microaqueduct slide (#3) ontop of inner perfusion gasket (#4) inside chamber base. Place microslide perfusion gasket (#2) ontop of microaqueduct slide (#3) inside chamber base. Make sure all gaskets lay flat at each layer as not to fold or wrinkle, if this occurs straighten gasket before moving to next step. Finally place chamber top (#1) onto gaskets and optical stack. Using slider push slider toward center of chamber base, this will cause the locking wedge to contact the chamber top and seal the optical cavity. A thumb lock is a secondary positive lock to secure the chamber. Spin clockwise to lock, counter clockwise to unlock the chamber. See images below. Install waste tubing to 14 gauge perfusion port, then purge inflow side of chamber to end of slip on tubing before installing onto chamber. Tip chamber up at 45 or 90 degree so that inflow tubing facing floor, and outflow is facing ceiling. Slowly perfuse chamber to fill optical cavity with chamber in this oreintation to help purge air out of the chamber.



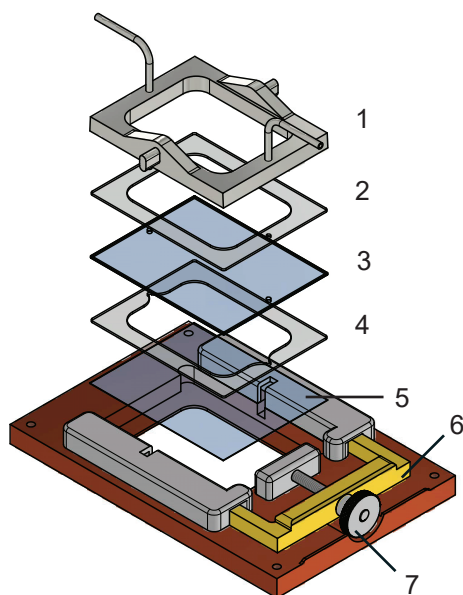
Chamber Open



Chamber Closed

### Cleaning:

Laboratory soap and water can be used for general cleaning of the all components. Please do not submerge well plate base. For sterility the perfusion insert, microaqueduct slide, gaskets and coverslips can be autoclaved on a short cycle (15 minutes @ 121 C). If spillage occurs inside chamber base, sterilize by an alcohol wipe, UV or Ethylene Oxide sterilization. Alcohol or other harsh chemical which come in contact to the silicone gaskets should be avoided as degredation will occur.



- 1) Chamber Top / Perfusion Insert
- 2) Microslide Perfusion Gasket
- 3) Microaqueduct Slide
- 4) Inner Perfusion Gasket
- 5) 64 x 50 mm coverslip
- 6) Slide Lock
- 6) Chamber Base / Well Plate (127 x 85mm)
- 7) Thumb Lock

