User Guide

Static Cell Confiner - CSOW 110

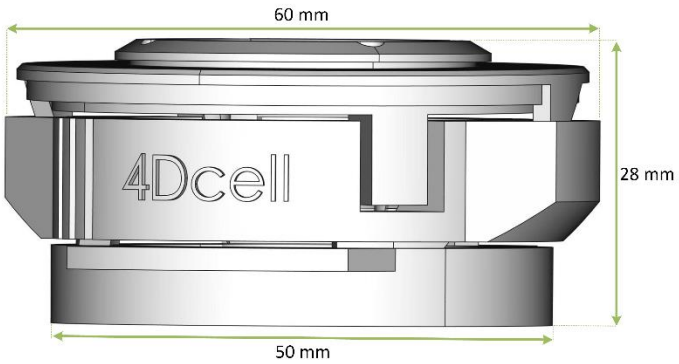
Material Included:

- 4DCell CSOW 110
- Confinement slide
- Petri Dish

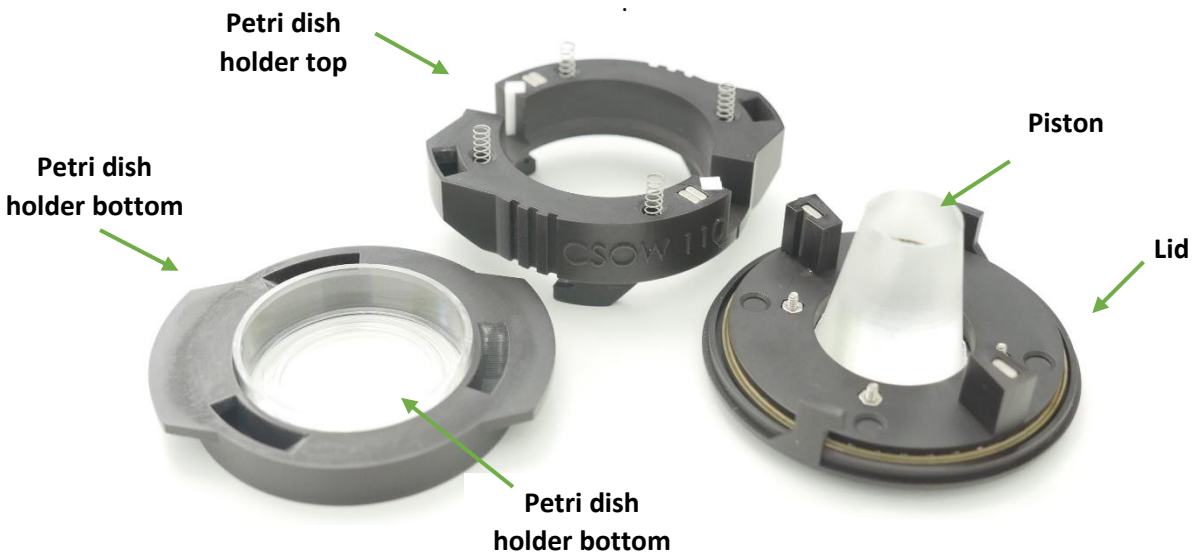
Other recommended material:

- Ethanol 70%
- Tape
- Tweezer
- Small blade
- Caps

CSOW 110 dimensions:

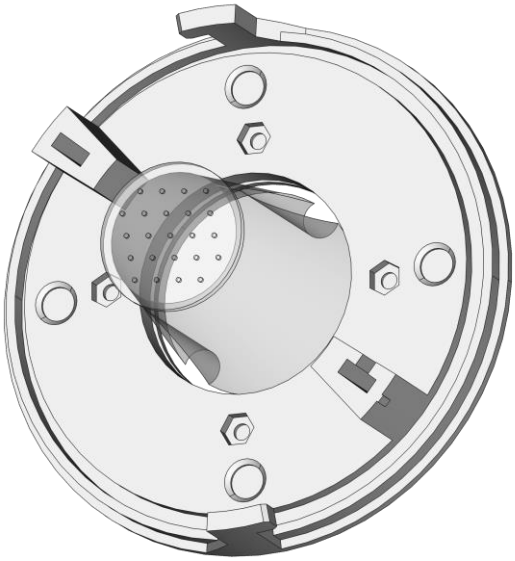


CSOW 110 parts:



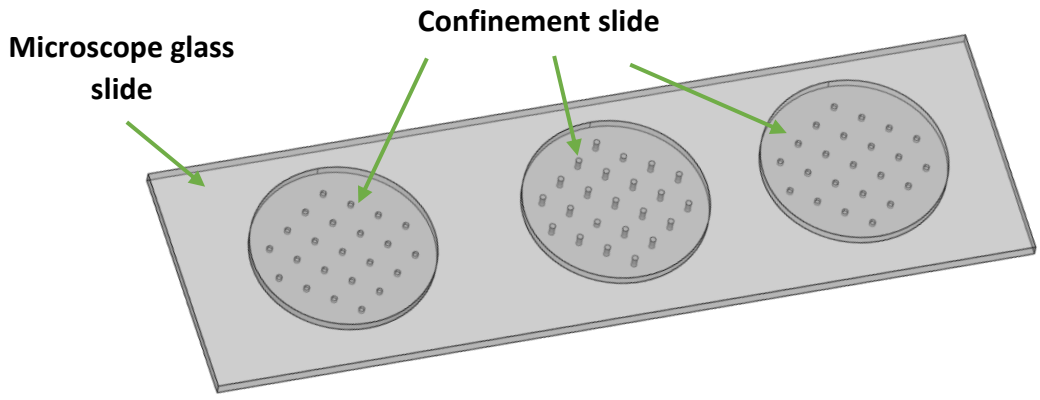
Handling:

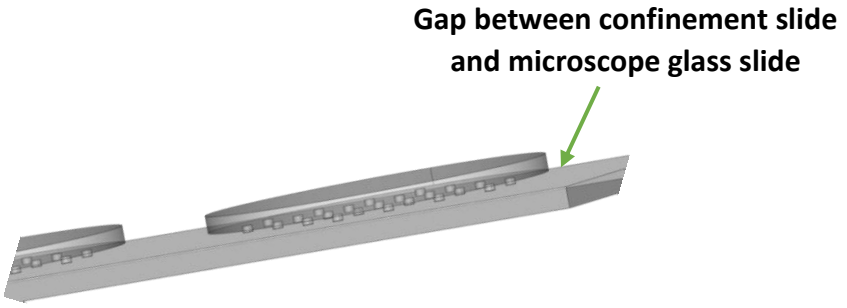
1. Attach one PDMS piston to the lid as depicted in the figure bellow.



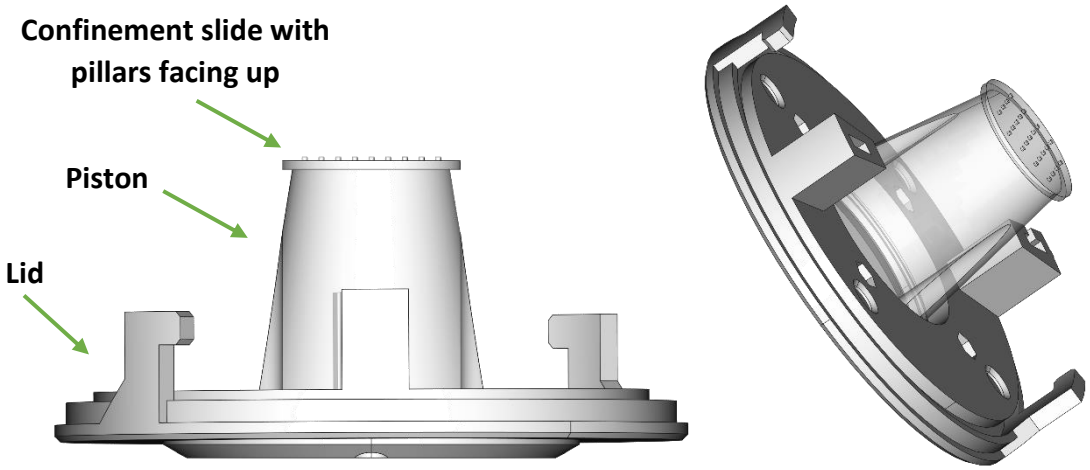
The PDMS is usually sticky, enabling it to be attached to the glass very easily. The piston can be cleaned and sterilized with ethanol 70%. If the PDMS piston has particles of dust, you can use the tape provided in the kit to remove them previously to sterilizing it. Do not forget to align the indentations of the piston with the holes existing in the glass part of the lid. These can be used to pipette media, aspirate it, etc. The holes can be closed with the caps provided in the kit.

2. Remove one confinement slide from the microscope slide where they were shipped. The pillars are facing down. You can use a blade to gently remove it. Place the blade in the small gap between the confinement slide and the microscope glass slide. Afterwards, tilt the blade so that the confinement slide detaches from the microscope glass slide.





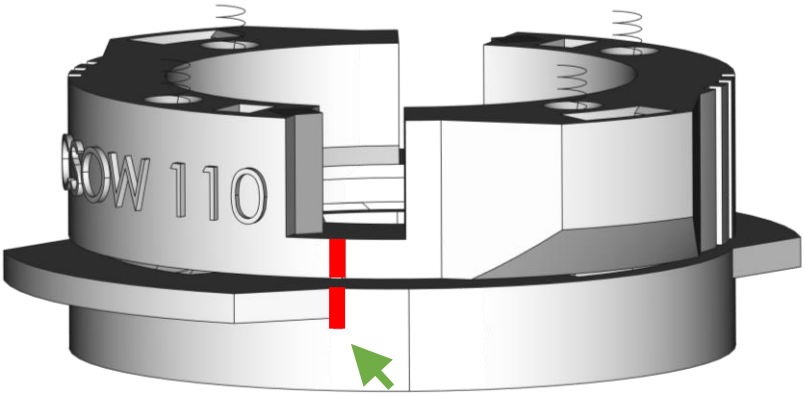
3. Place the confinement slide on the PDMS piston with the pillars facing up as depicted in the figure bellow:



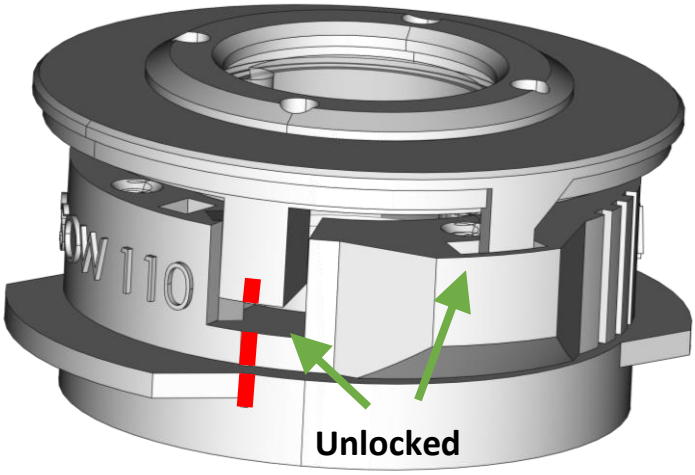
4. You can also sterilize the confinement slides with 70% ethanol. (Do not use autoclaving to sterilize the lid!)

5. Optional: Incubate the pillar and the confinement slide in culture medium to equilibrate the PDMS. To do this you can put the lid on the top of the petri dish holder but without locking it. This way, when you incubate the PDMS piston with the confinement slide, this does not touch the bottom of the petri dish. Note that PDMS absorbs small hydrophobic molecules from the medium. Therefore, if drugs are used in the experiment, these drugs have to be present during this incubation step.

6. When enclosing the petri dish with your cells between the top and bottom holder, make sure the holders are aligned by the small mark (shown in red in the scheme below). Also make sure that the top and bottom petri dish holders are well locked. This will ensure that it remains locked during the experiment.

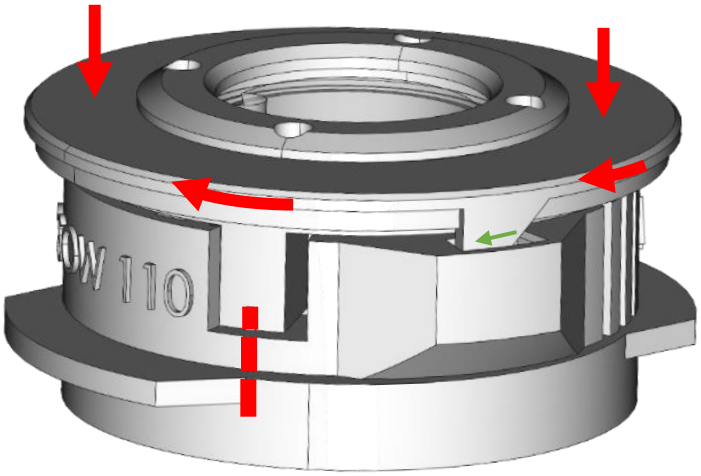


7. Put the lid on the top of the petri dish holder already assembled. Align the mark (here highlighted in red) in the lid with the bottom ones. There are two positions here, one locked and the other unlocked. When the lid is locked it means you are confining your cells.



8. To confine the cells, from the unlock position, gently press the lid down and then rotate clockwise. At this point, your cells are confined.

Apply pressure on the lid while rotating clockwise



Note: Be careful to transport the device carefully to prevent any disassembling during your experiments!