



H301-EC-LG-UP-BL

Compatible with the following Z-Piezo stages

- LEICA Super Z Galvo stage (SP5/SP8)

Compatible with the following Okolab Controllers

- H301-T-BL-PLUS
- UNO-COMBINED-CONTROLLER
- H401-T-DUAL

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1. Components and dimensions

H301-EC-LG-UP-BL includes the following components:

- Chamber base with embedded temperature sensor
- Chamber body with holes (x12) for the insertion of perfusion tubing up to 2.0 mm outer diameter
- Objective adapter. Please specify objective in use and adapter dimensions at the time of purchase.
- Heated Lid. It features a hinge system allowing opening and closing the lid around the objective
- Total chamber weight: 170 g.

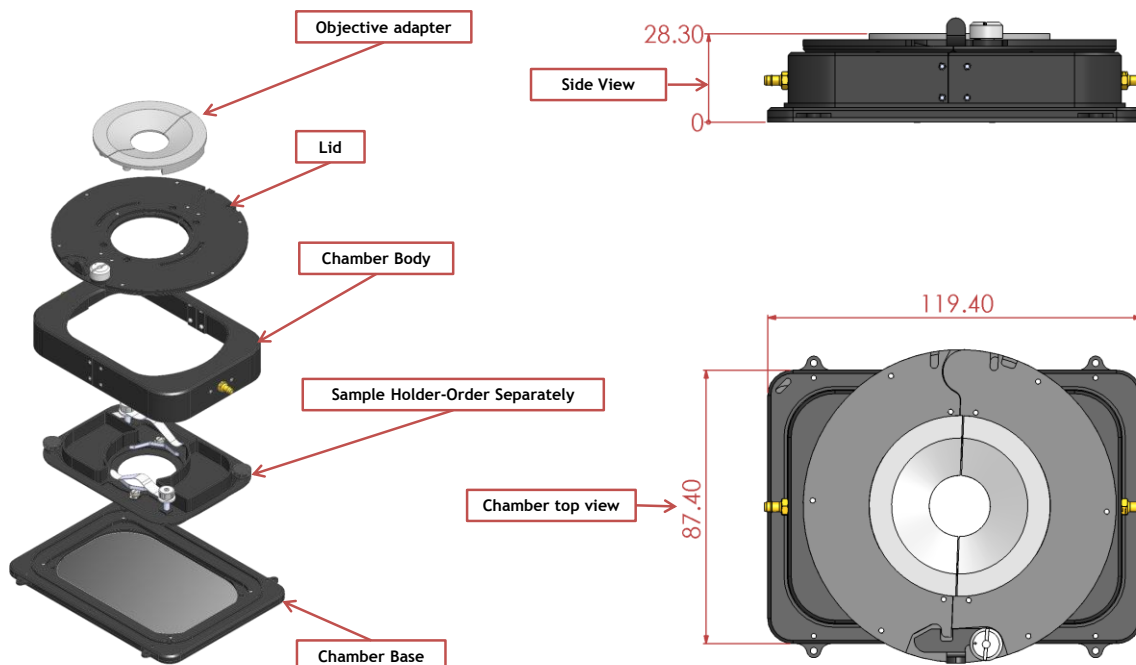


Figure 1. H301 EC-LG-UP-BL - Components and Dimensions.

2. Sample Holders

2.1 Available Sample Holders

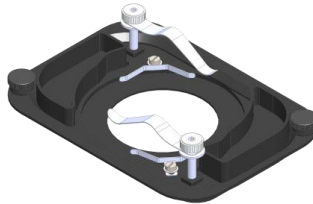
The following sample holders are available.

NOTE: Please contact info@oko-lab.com if you cannot find the sample holder you are looking for. We are constantly adding new inserts to the list.

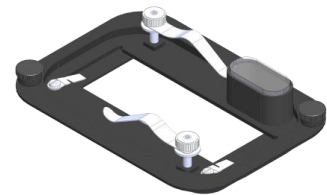
H301-EC-LG-UP-1x35	#1 35mm Petri-dish holder
H301-EC-LG-UP-1xGS	#1 standard chamber slide holder
H301-EC-LG-UP-1x60	#1 60mm Petri-dish holder



H301-EC-LG-UP-1x35
For #1 35mm Petri-dish holder



H301-EC-LG-UP-1x60
For #1 60mm Petri-dish holder



H301-EC-LG-UP-1x60
For #1 1"x3" chamber slide holder

Figure 2. Available sample holders.

3. Insertion of the Sample Feedback Temperature Sensor

Insert the Sample Feedback Temperature Sensor through one of 12 perfusion holes (see par.9 Figure 10) located in the H301-EC-LG-UP-BL chamber body (see Figure 3, Front and 3D views). Small screws plug the perfusion holes when not in use. (Grub screws M3x6). Remove small screw as needed before introducing the sample Feedback Temperature Sensor.

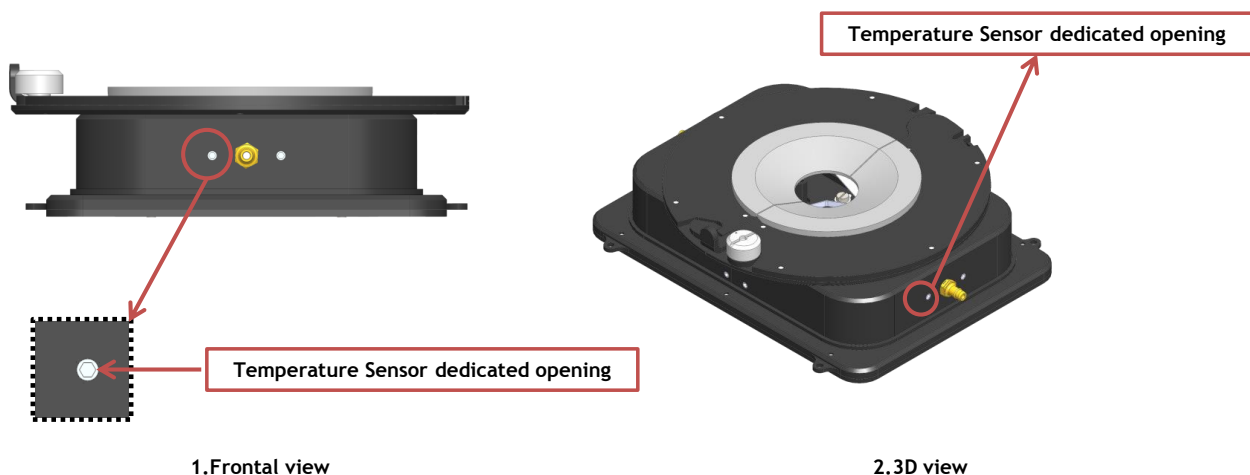


Figure 3. Insertion of the temperature sensor inside the chamber.

4. Insertion of Sample Holder into Chamber

Sample holders fit into the chamber base and are held in place by 2 Captive screws M2x6, as shown in Figure 4 Images 1 and 2

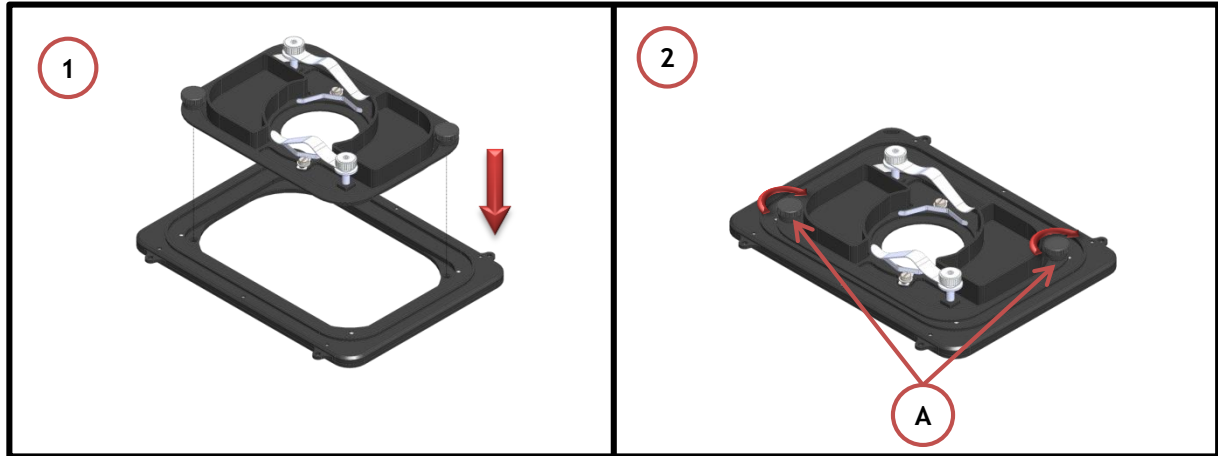


Figure 4. Introduction of the specimen Holder in the Chamber Base

5. Sample Holder replacement

If you want to change the sample holder follow the steps shown in the images of Figure 5 and listed below:

1. Open the lock spring, as shown in Figure 5 Image 2
2. Open the chamber lid as shown in Figure 5 Image 3
3. Remove the chamber by lifting it from the workspace, as shown in Figure 5 Image 4
4. Remove the chamber by lifting it from workspace, as shown in Figure 5 Images 5 and 6
5. Unscrew captive screws. The Captive screw location is indicated by letter A, in Figure 5 Image 7
6. Lift and replace the sample holder, as shown in Figure 5 Image 8

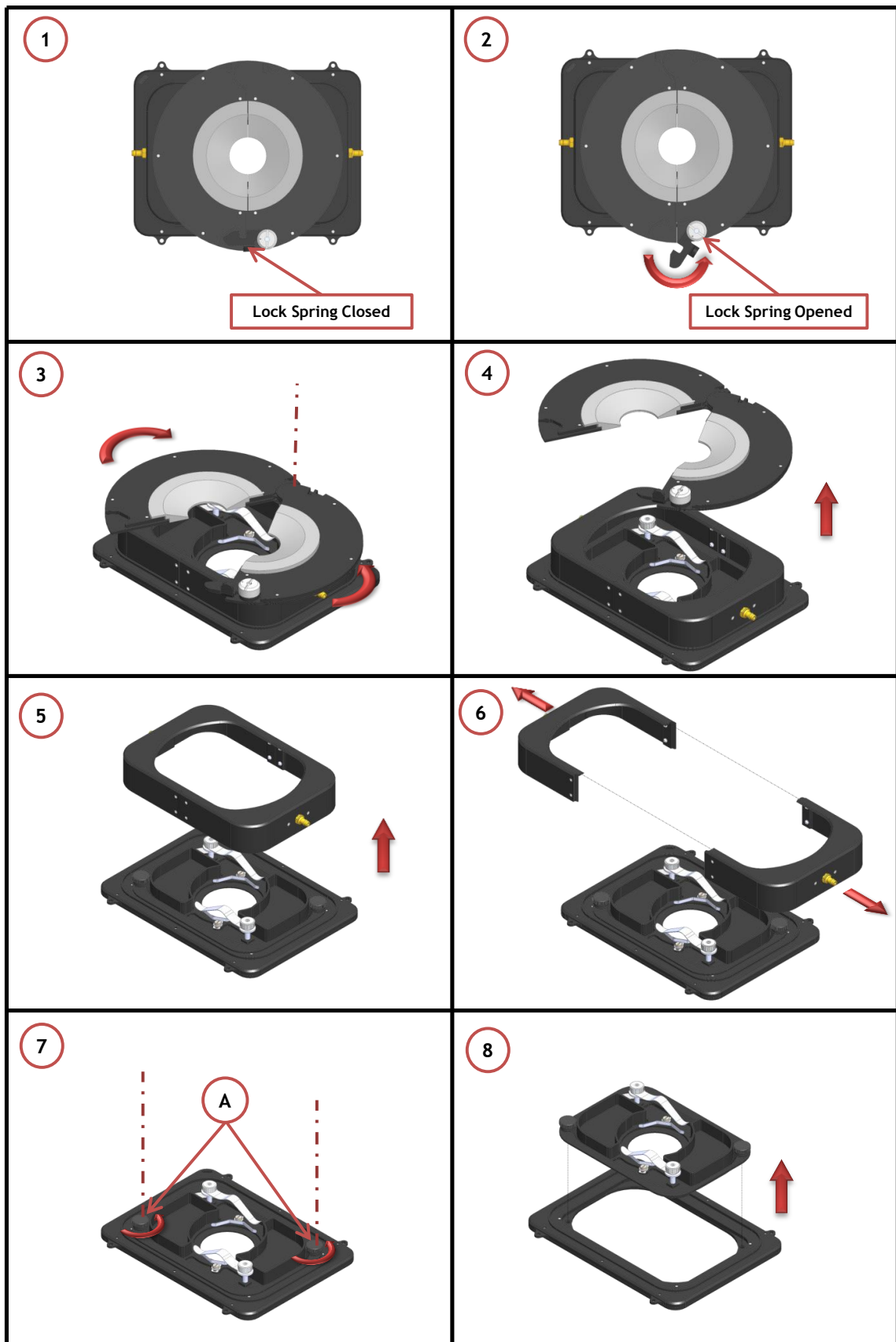


Figure 5. Replace of the Specimen Holder inside the Chamber Base.

6. Working with 35 or 60 mm Petri Dishes

Flat springs prevent movement of 35 and 60 mm dishes inside of the sample holder (See Figure 6 and Figure 7).

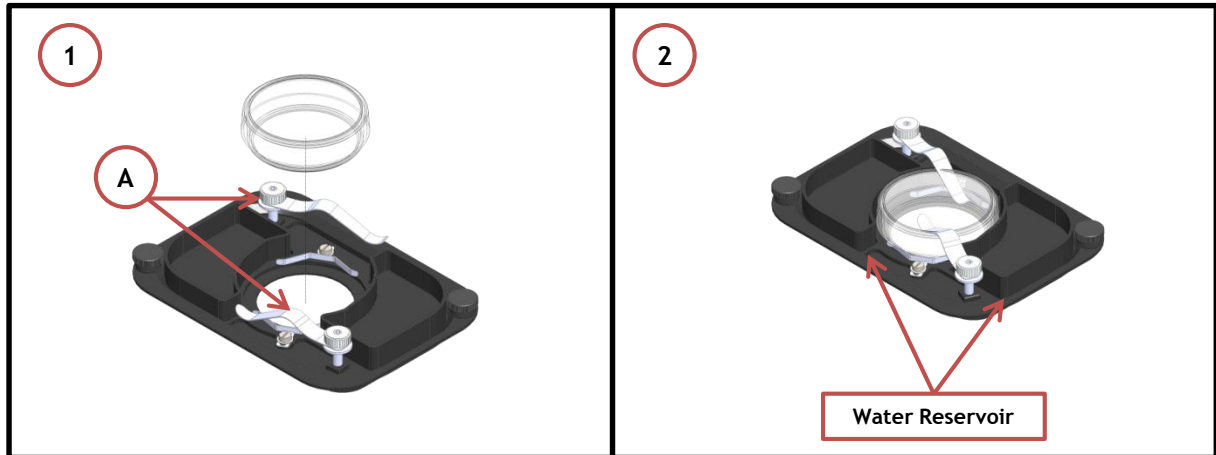


Figure 6. Plate adapter for 35 mm Petri-dish holder.

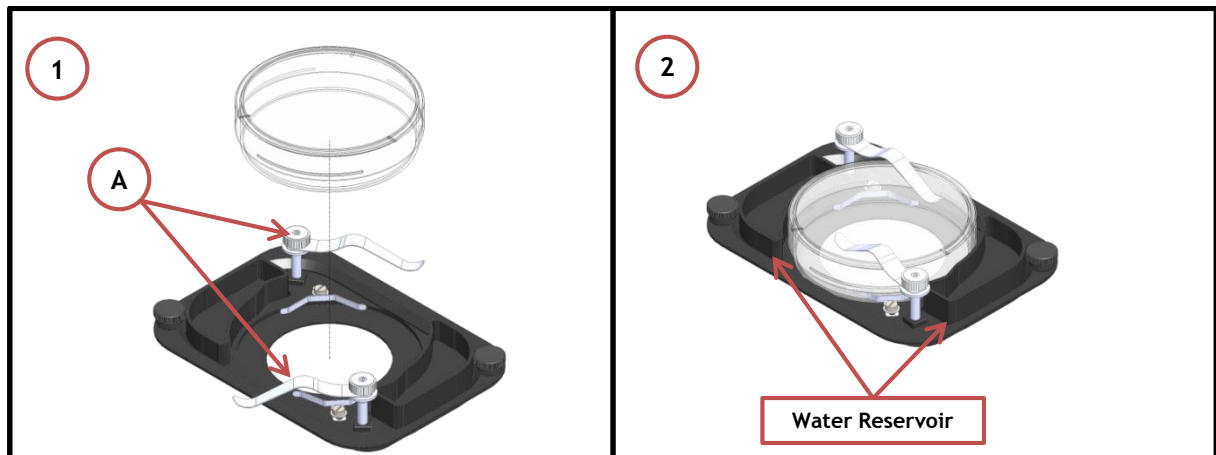


Figure 7. Plate adapter for 60 mm Petri-dish holder.

Note. On the sample holders for petri dishes there are two water reservoirs (see Image 2 of Figure 6 and Figure 7). Fill them with water to ensure a high humidity percentage inside the chamber.

7. Working with 1x3'' chamber slides

Flat springs prevent movement of 1''x 3'' chamber slides inside of the sample holder. A and B in the Figure 8 below.

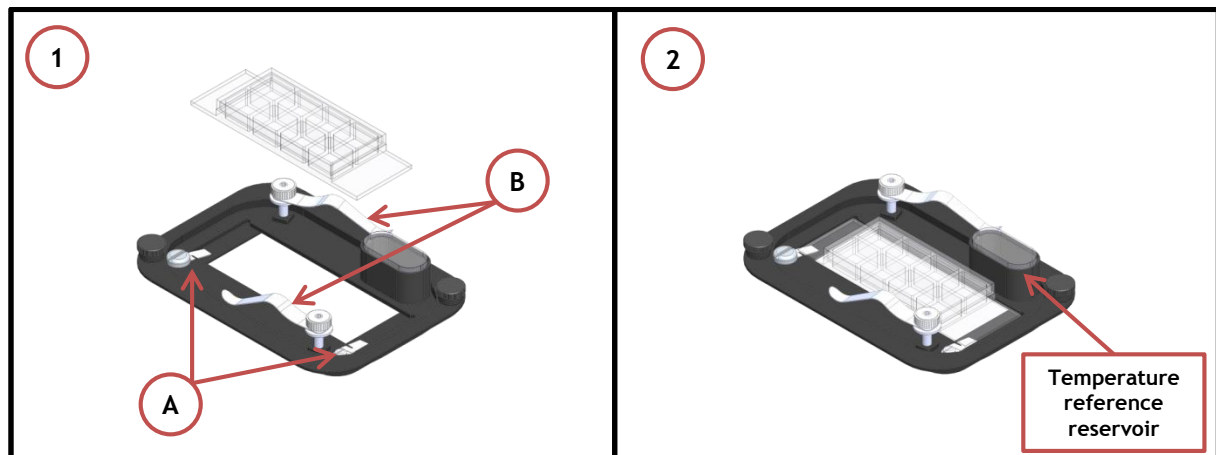


Figure 8. Plate adapter for 1''x3'' chambered cover glass holder.

Note. On the sample holders for chamber slide there is a Temperature reference reservoir. When operating in Sample Feedback Mode fill it with water and immerse the temperature sensor. This acts as a 'reference well' allowing sample temperature feedback without contaminating the sample.

8. Connection of the Gas Supply

A single silicon tubing carries output gas from the Okolab Gas Controller to the H301-EC-LG-UP-BL. Silicon tubing connects to a gas input - brass opening - located on the side of the H301-EC-LG-UP-BL. See Figure 9. Connect by gently pushing silicon tubing onto brass opening.

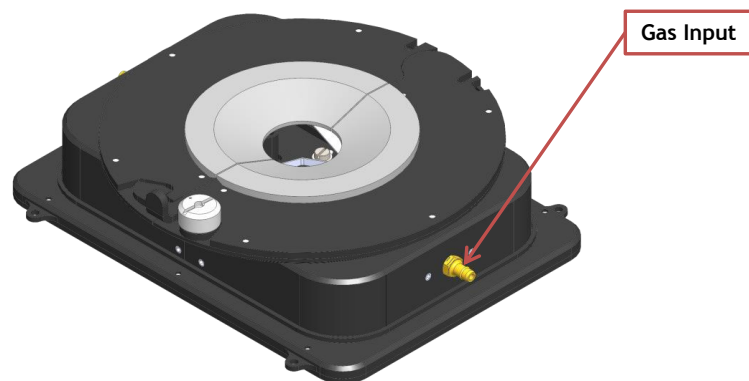


Figure 9. Connection with gas supply.

9. Working with Perfusion

The H301-EC-LG-UP-BL features 12 perfusion holes on the sides for the insertion of perfusion tubing up to 2.0 mm in outer diameter. Small screws plug the perfusion holes when not in use. (Grub screws M3x6). Remove small screws as needed before introducing perfusion tubing.

Figure 10 shows the location of perfusion holes (Front and 3D views).

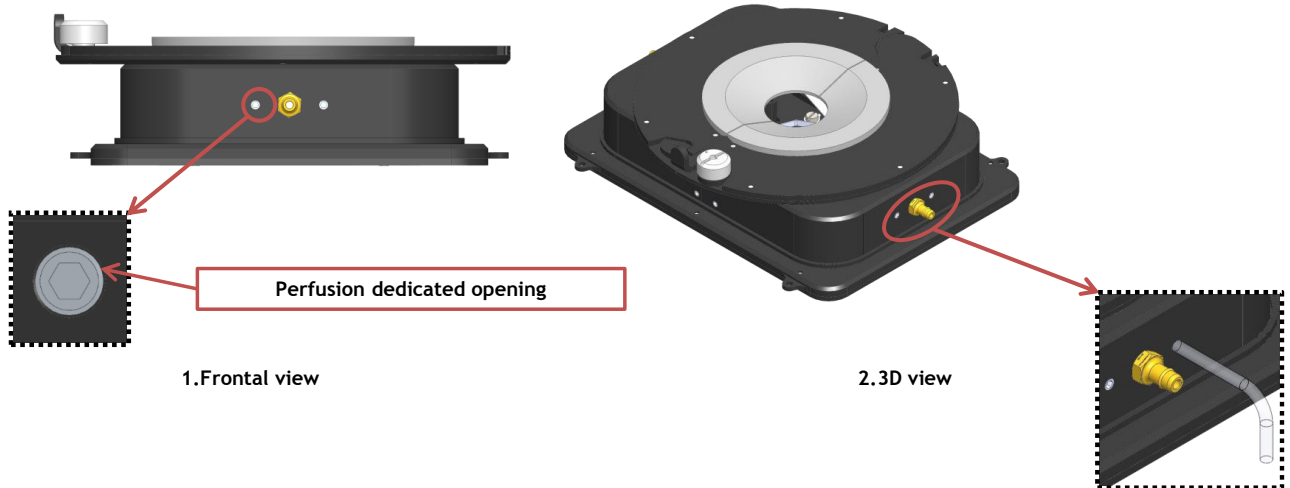


Figure 10. Perfusion

10. Connection of the Chamber with Super Z-Galvo stage

H301-EC-LG-UP-BL fits on the Super Z-Galvo stage. It can be screwed onto the Galvo Stage as shown in Figure 11; place the chamber on the stage and screw the four slotted head pan screws. Screws housings are indicated with letter A in Figure 11.

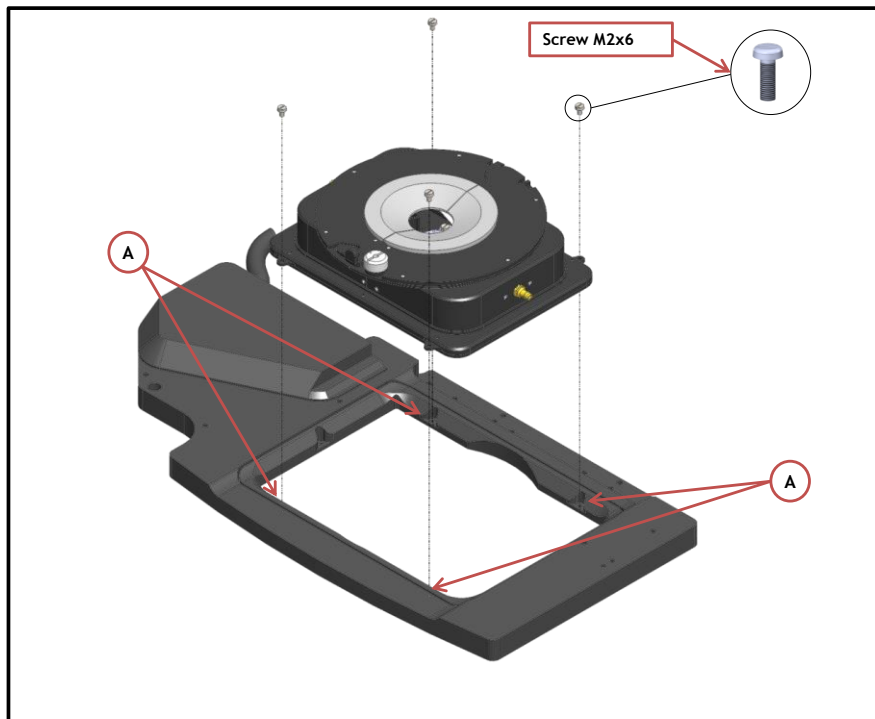


Figure 11. How to fix the H301-EC-LG-UP-BL on the Super Z Galvo stage