okolab

USER MANUAL
H303-K-FRAME



Provided by Coastal Microscopes

IST 3876_REV01
DOC_REV02_141025

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1. XY Stage Compatibility

1. ASI: All models, inlcuding z-piezo.
2. Leica: All models with 160 x 110 opening
3. Ludl: All models with 160 x 110 opening
4. Marzhauser: All models
5. Olympus: All models with 160 x 110 opening
6. Prior H107
7. Zeiss: All models with 160 x 110 opening

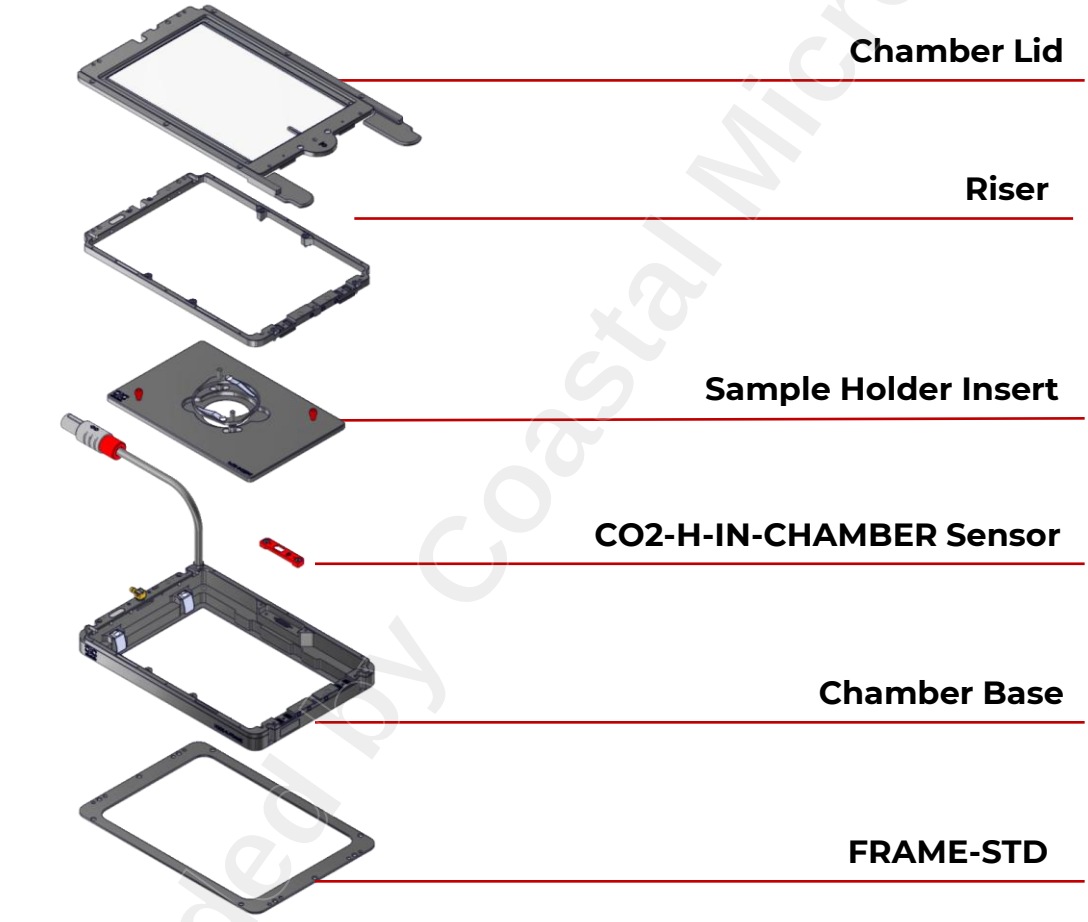
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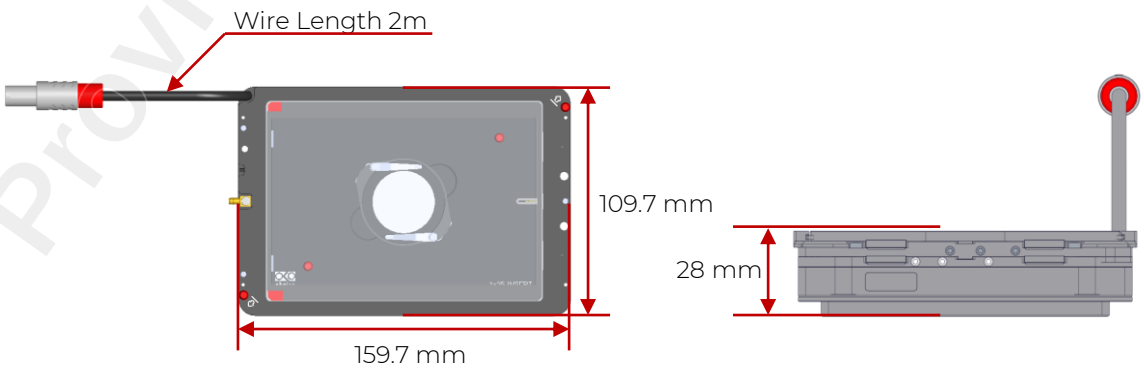
2. Components & Dimensions

The Chamber is comprised of the following six main components:

- **Chamber Lid**: Heated Glass Lid with Indium Tin Oxide (ITO) conductive coating and an embedded temperature sensor.
- **Riser**: it elevates the base to accommodate the multiwell plates thicker than 16mm.
- **Sample Holder Insert** (optional): : Inserts designed to house different sample holders such as 35mm petri dishes, chamber slides etc.
- **CO2-H-IN-CHAMBER Sensor** (optional): A miniature CO2 and humidity sensor that can be embedded inside the H303-Chamber, ensuring a real time monitoring of your sample. Continuous CO2 and Humidity feedback enhances control accuracy and assure a total sample protection.
- **Chamber Base**: Chamber main body with an embedded temperature sensor.
- **FRAME-STD**: bottom frame to fix the chambers on Ludl, Marzhauser, Prior, Nikon stages

The image below illustrates the components and the overall dimensions of the Chamber.

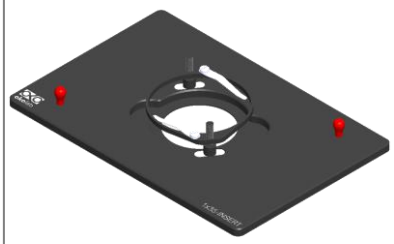




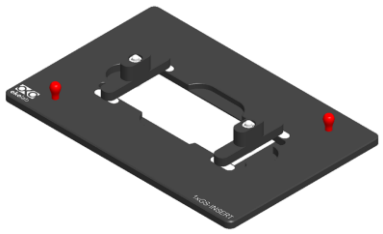
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3. Available Sample Holder inserts

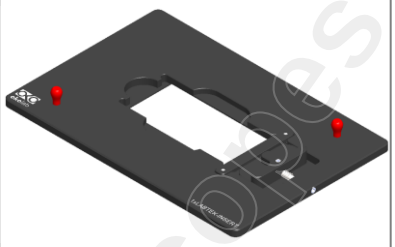
1x35-INSERT



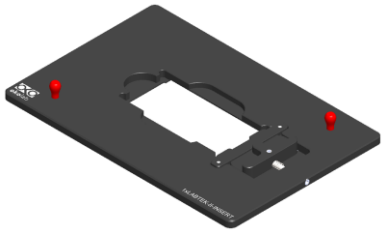
1xGS-INSERT



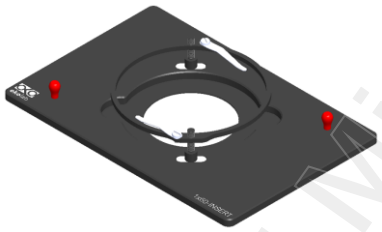
1xLABTEK-INSERT



1xLABTEK-II-INSERT



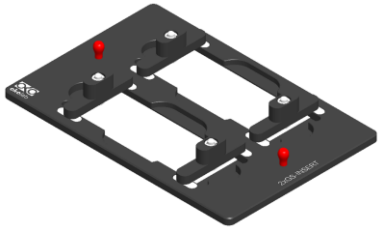
1x60-INSERT



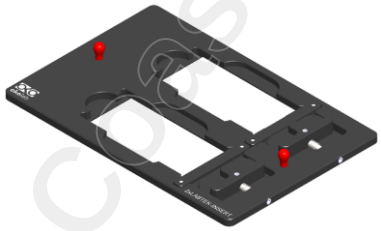
2x35-INSERT



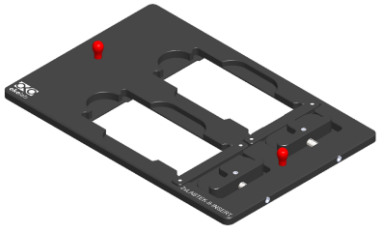
2xGS-INSERT



2xLABTEK-INSERT



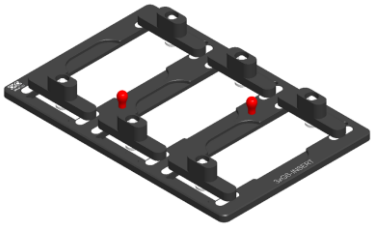
2xLABTEK-II-INSERT



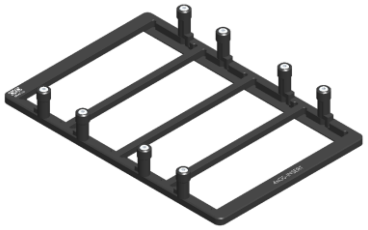
2x60-INSERT



3xGS-INSERT



4xGS-INSERT



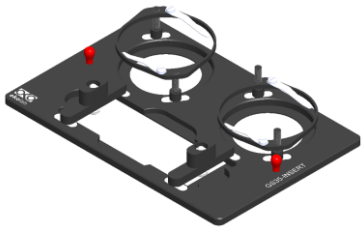
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3. Available Sample Holder inserts

4x35-INSERT



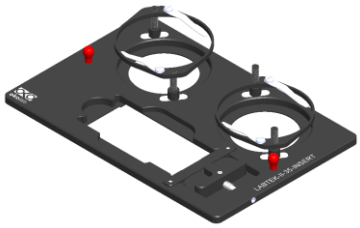
GS35-INSERT



LABTEK-35-INSERT



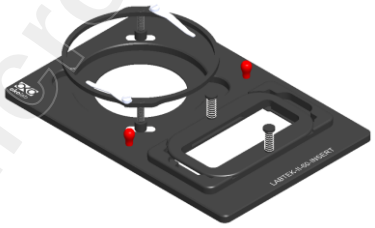
LABTEK-II-35-INSERT



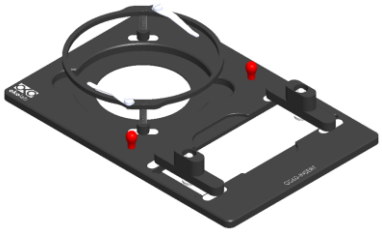
LABTEK-60-INSERT



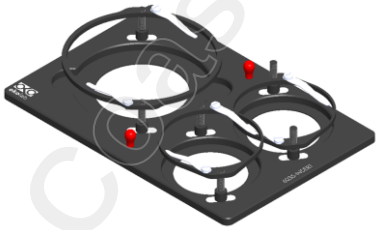
LABTEK-II-60-INSERT



GS60-INSERT



6035-INSERT



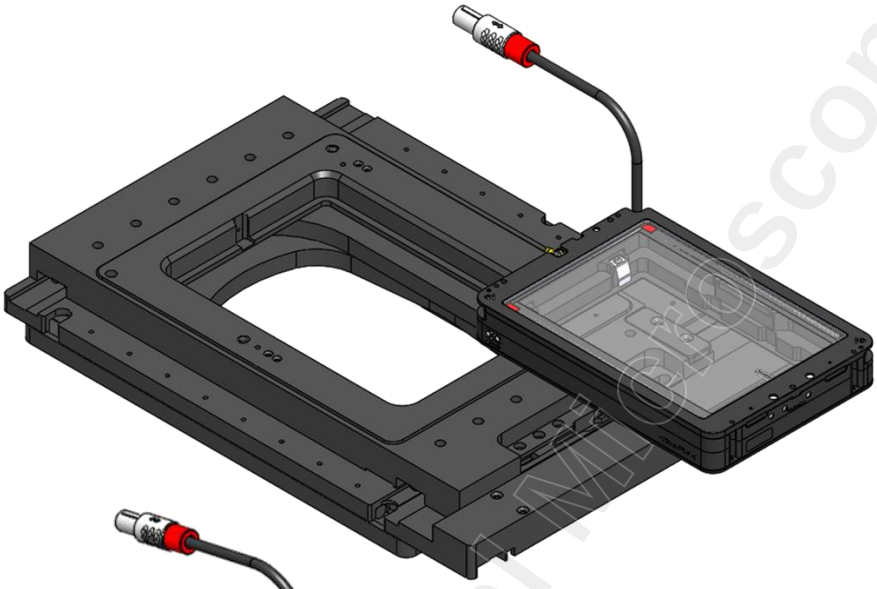
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4. Mounting the Chamber on to the Stage

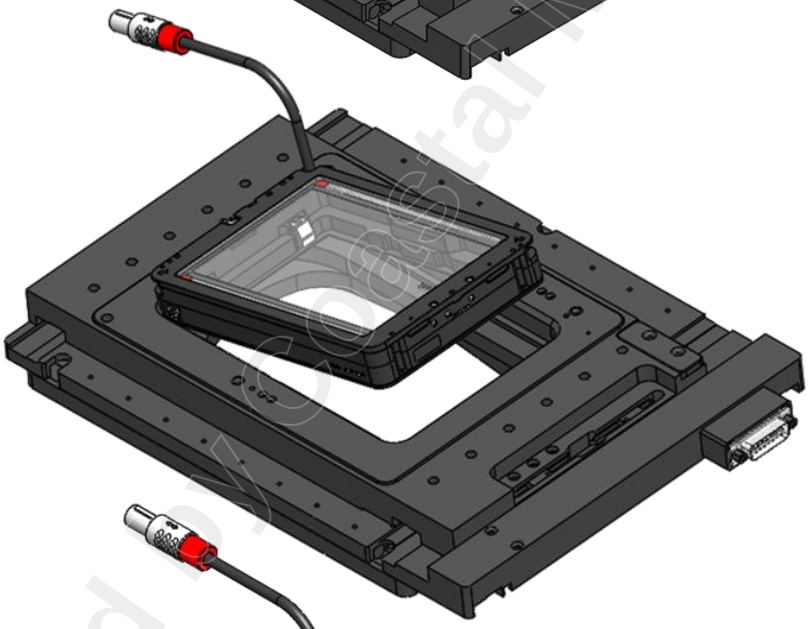
The H303-K-FRAME fits on the XY Stage without any screws. To fix the chamber on the stage, follow the steps below:

- Place the chamber on the stage
- Incline the chamber and,
- Slide it in direction of the springs until it snaps into the housing.

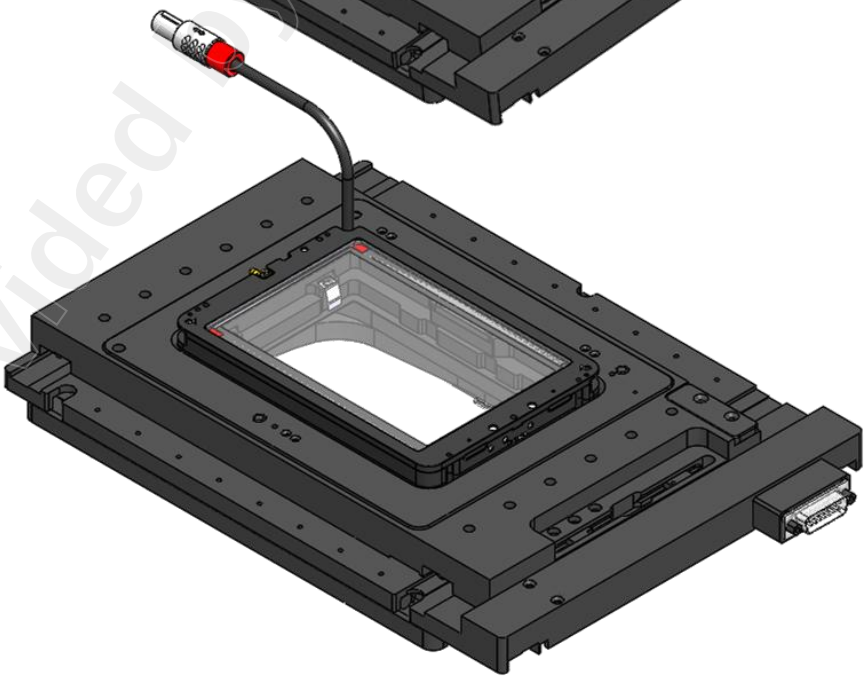
1



2



3

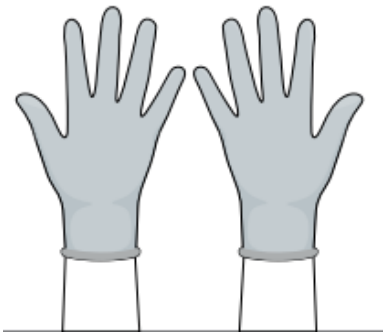


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5. Mounting the CO2-H-IN-CHAMBER Sensor

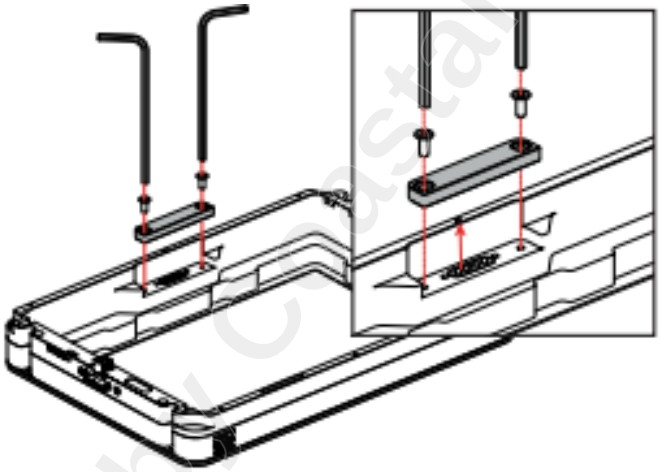
The H303-K-FRAME is compatible with the CO2-H-IN-CHAMBER SENSOR (optional) for in chamber closed loop control on CO2 and Humidity.

To manage the CO2-H-IN-CHAMBER SENSOR please wear the antistatic gloves.

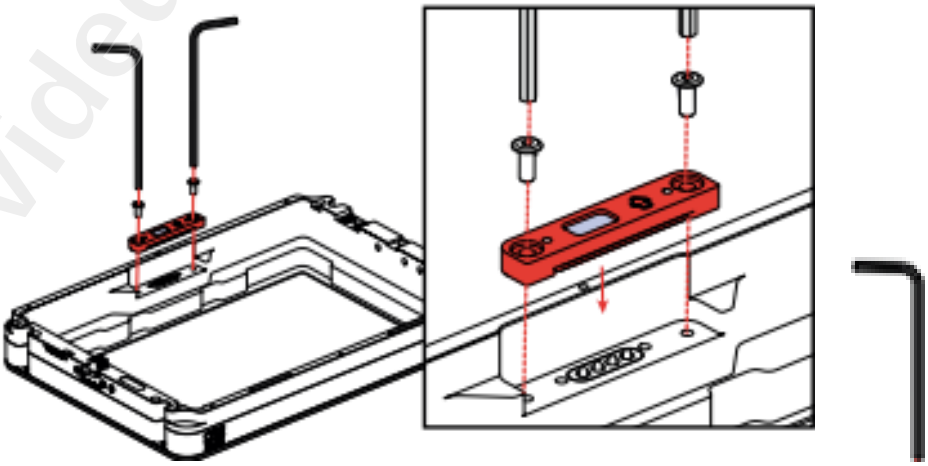


To mount the CO2-H-IN-CHAMBER SENSOR into the chamber, please follow the steps below:

1 Remove the cap by using the hexagonal key. Re-place the cap in dedicated slot every time the sensor isn't mounted on.



2 Install the CO2-H-IN-CHAMBER Sensor inside the chamber by using the hexagonal key.



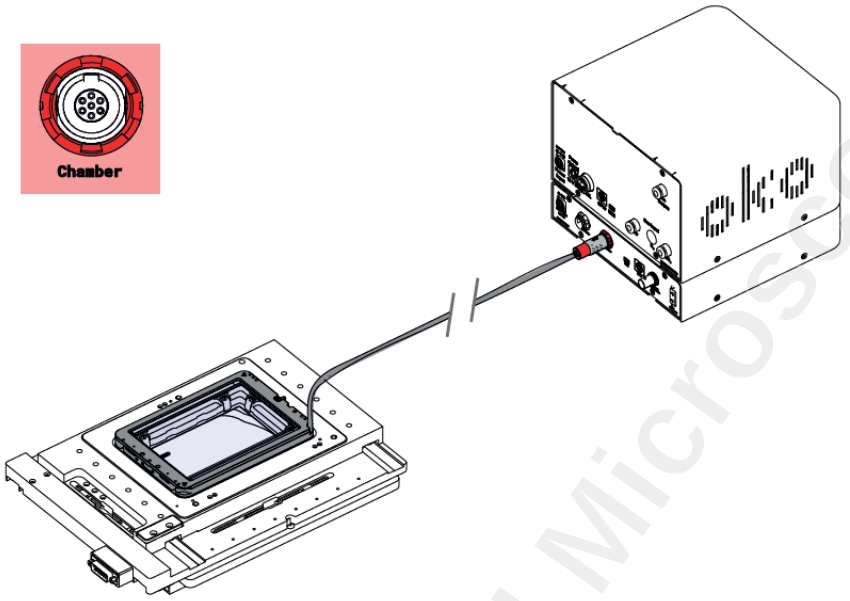
1.27 mm Allen key.

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6. Chamber Connections

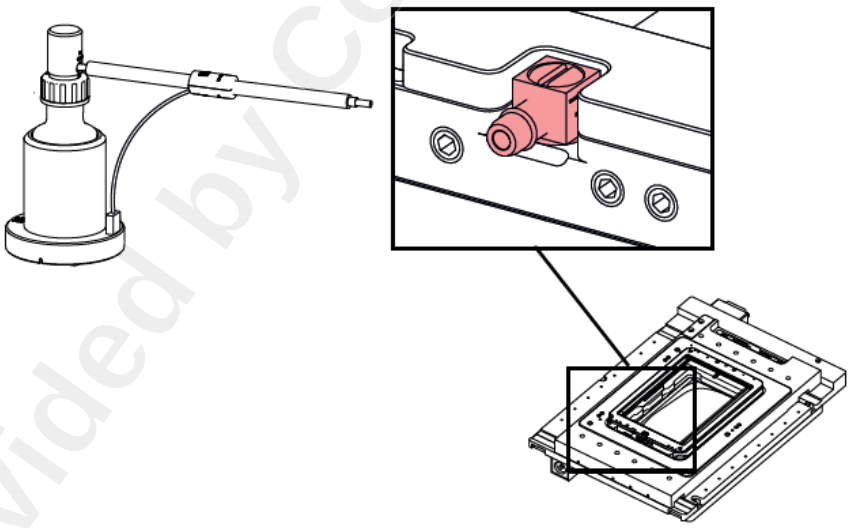
Connection to the Temperature Control Unit:

Connect the Top Stage chamber cable to the port labelled ‘Chamber’ on the rear panel of the H303-T-UNIT-BL



Connection to the Gas Supply:

Connect the Heated Tube from the HM-ACTIVE module to the Gas input connector of the chamber.



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7. Sample Holder Insert Usage

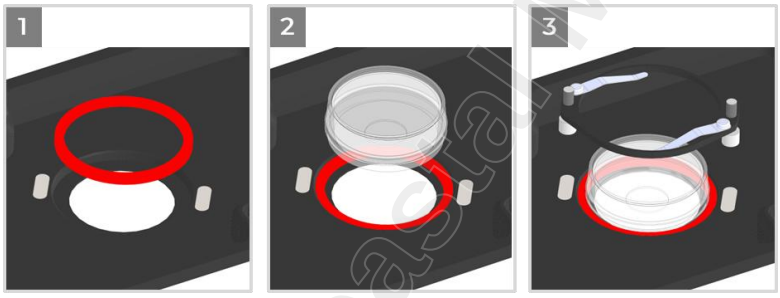
7.1 Working with Petri Dishes- Magnetic Locks & Spacing Rings

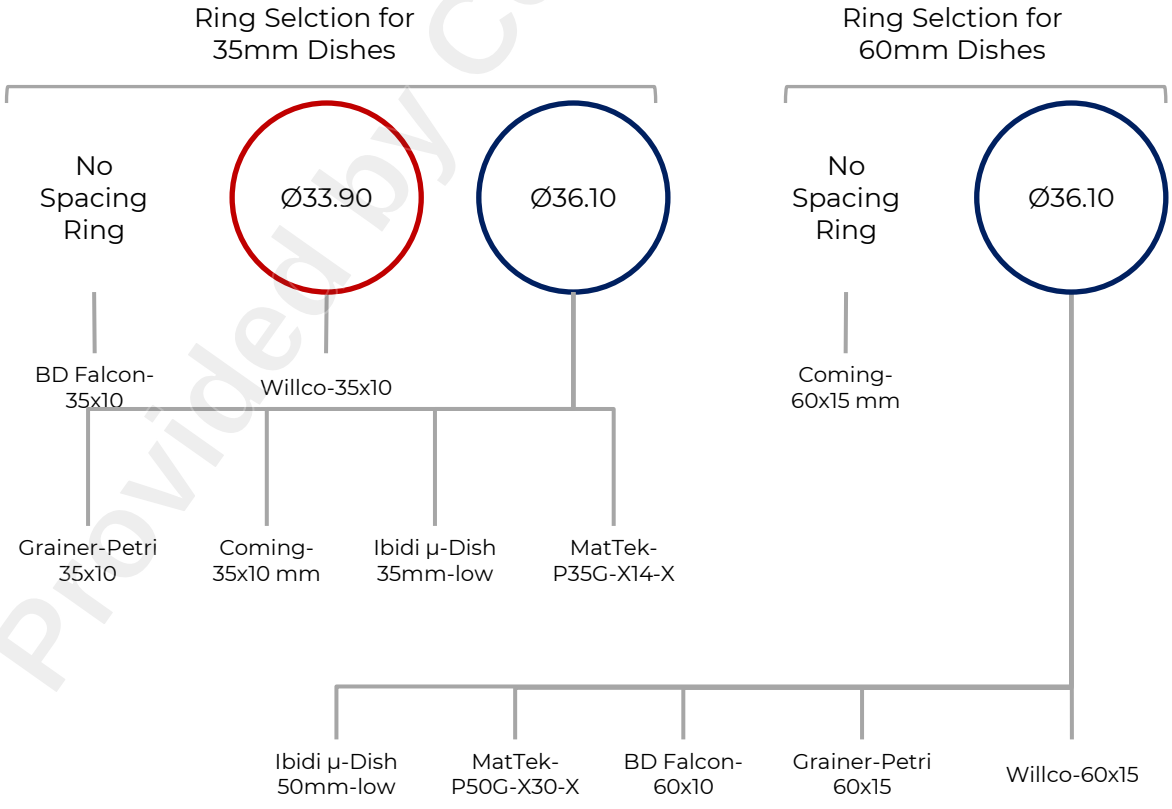
Magnetic locks prevent movement of 35 and 60 mm dishes inside the sample holder. The image below illustrates the available magnetic locks for 35 and 60 mm dishes. Threaded magnetic posts allow adjusting holder's height.



Spacing rings accounting for variability in dish diameter from one manufacturer to another are also included. Figure below shows how to position the ring.

NOTE: Spacing rings do not block the petri inside its accommodation, but they are designed to center the petri with respect to the observation circular window.





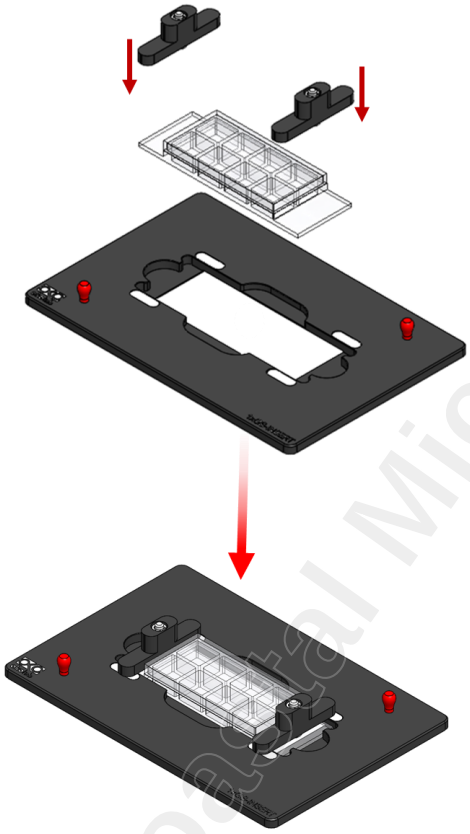
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7. Sample Holder Insert Usage

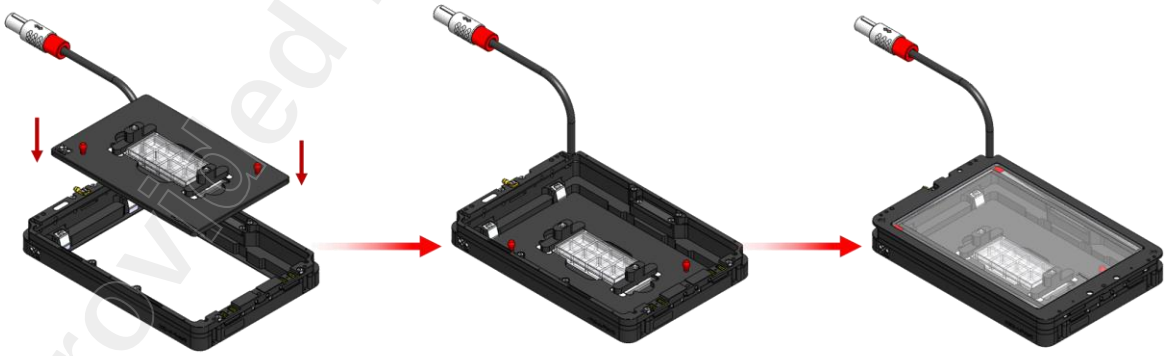
7.2 Working with Chamber Slider- Magnetic Locks

The Magnetic locks prevent movement of 1”x 3” and 1”x 2” chamber slides inside of the sample holder.

NOTE: Magnetic locks are included with sample holder.



To insert the sample holder into the Chamber simply insert it vertically into the chamber and close the lid after placing it inside.

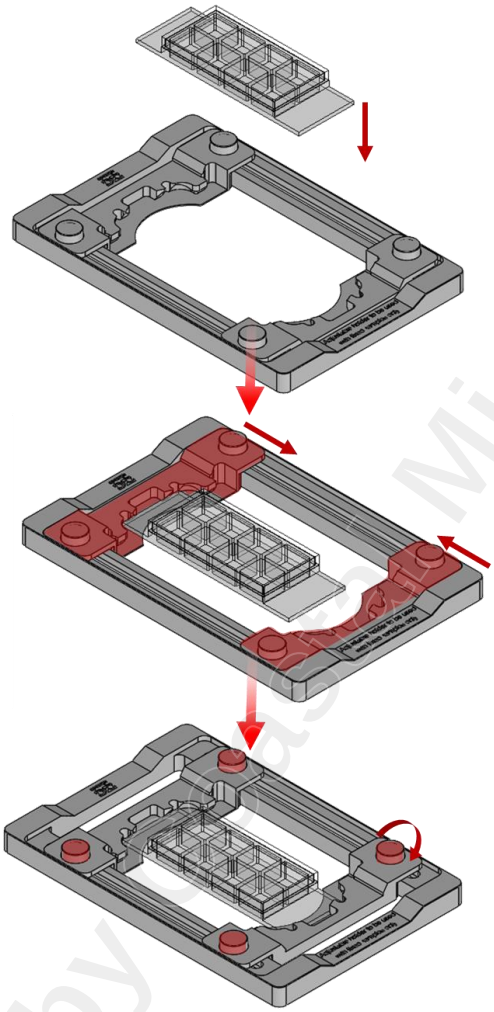


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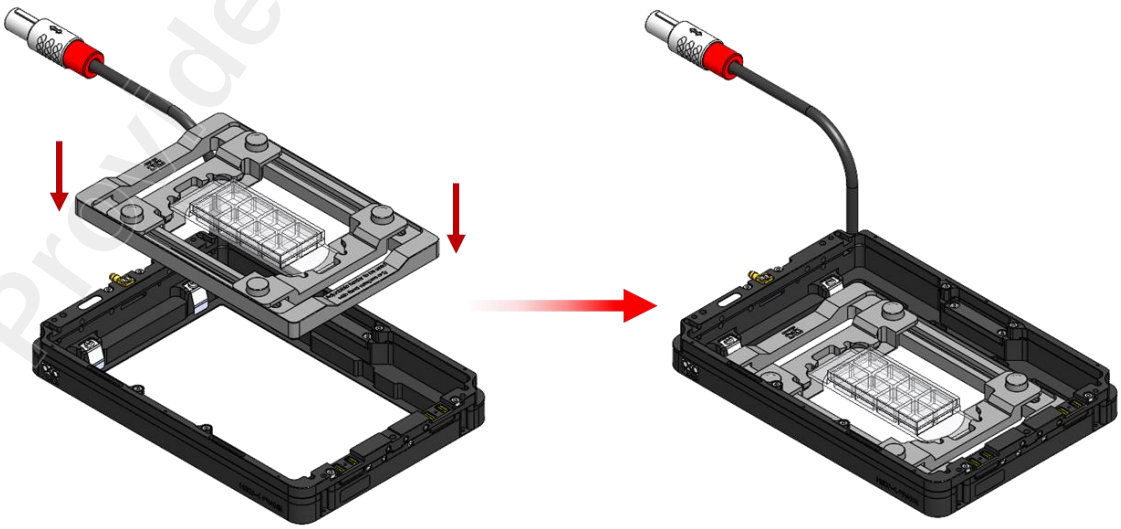
7. Sample Holder Insert Usage

7.3 Working with Fixed Samples

When working with fied samples, you can utilize the Adjustable Grey Universal Sample Holder with the sample mounted on iot in the following way.
This adjustable holder can fit directly into the H303-K-Frame chamber and you may simply take out the current Sample Holder Insert and replace it with this adjustable holder rather than taking out the entire chamber from the stage.



To insert the fixed sample holder into the Chamber simply insert it vertically into the chamber.



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8. Insertion of T Sensor into the Chamber

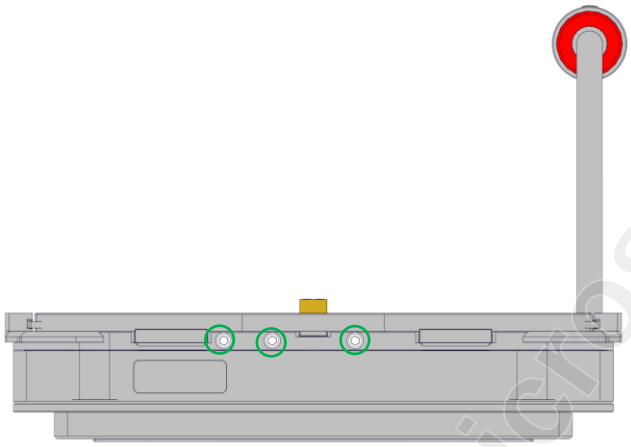
Insert the Sample Feedback Temperature Sensor through the dedicated opening (labelled as 'T Probe') located on the H303-K-FRAME as illustrated below:



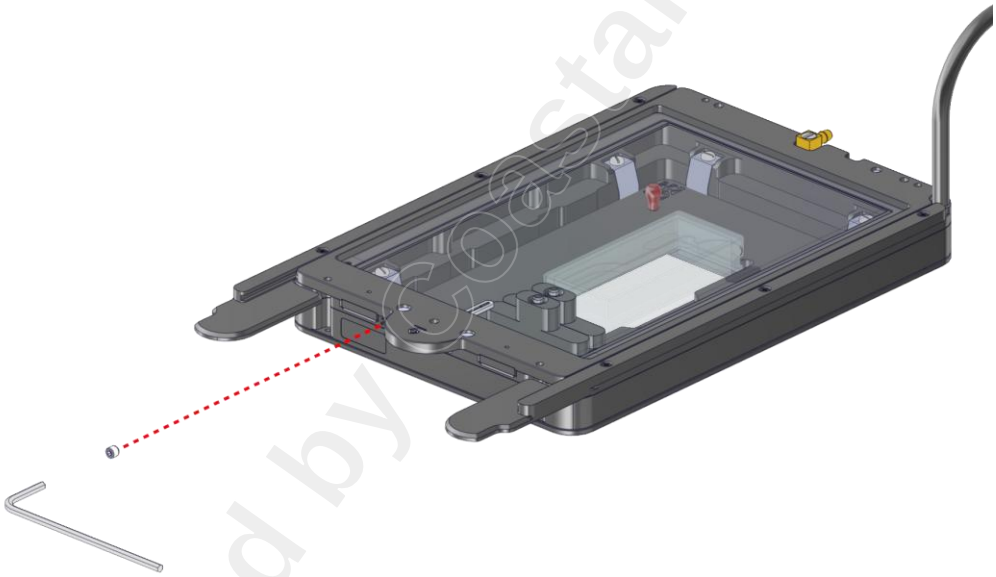
Provided by Coastal Microscopes

9. Working with Perfusion

The H303-K-Frame consists of 6 holes provided on the shorter edge of the chamber. These holes have been designed to remain closed, if you wish to utilize any of the 6 holes you can simply, Remove small screws with a 1.5 mm Allen key.



3 holes available on opposite edges



1.5 mm Allen key for opening the perfusion holes.

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10. Working with Stage Adapters

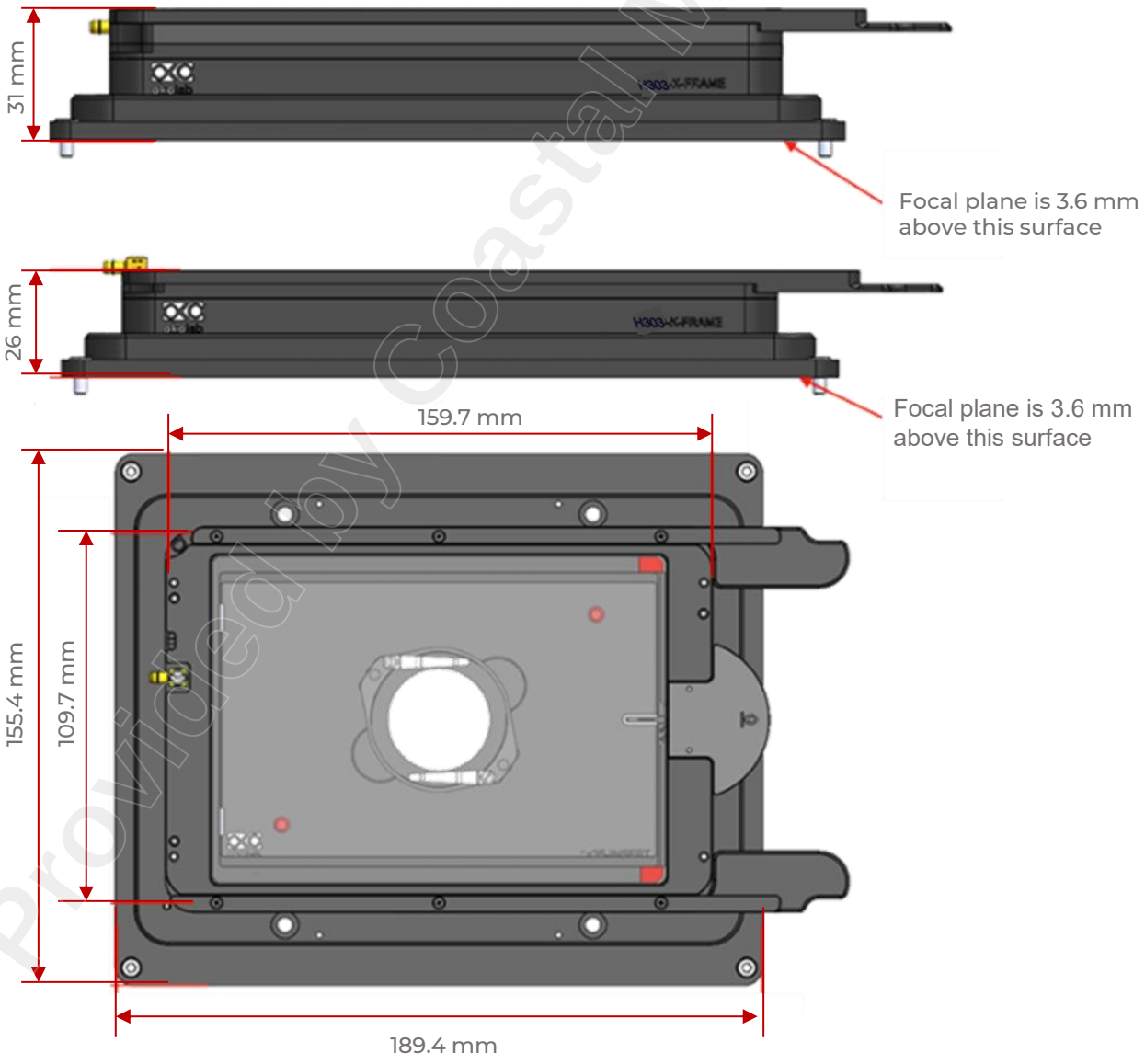
10.1 Working with SVR-PA

It is possible to purchase dedicated adapters to ensure compatibility of the chambers with alternative stage configurations.

- **SVR-PA:** stage adapter to fit K-FRAME chambers into IX3-SVR, IX3-SVL, GX-SVR, GX-SFR, IX3-SSU and IX5-SSA stages



The overall dimensions of the chamber are:



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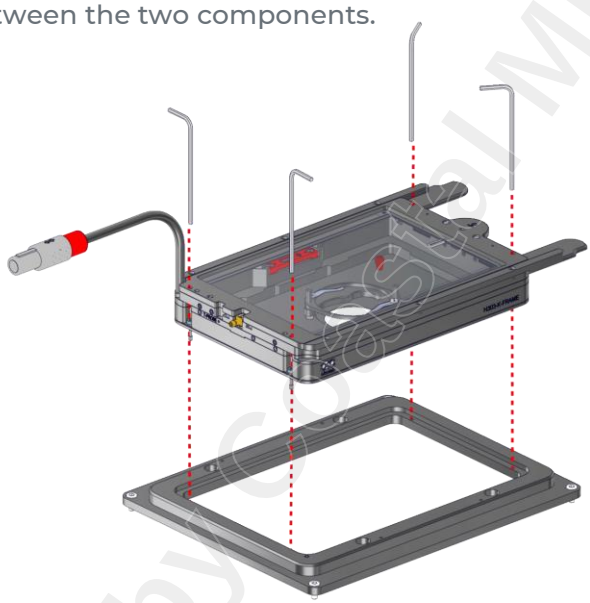
10. Working with Stage Adapters

10.1 Working with SVR-PA

1 To mount H303-K-FRAME on SVR-PA please incline the chamber and slide it in direction of the springs until it snaps into the housing.



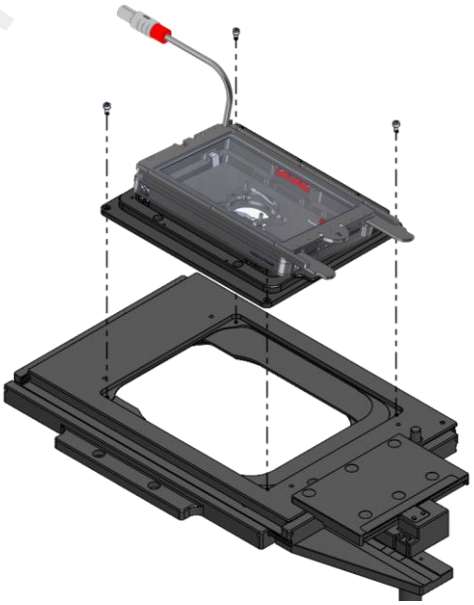
2 Then tighten the 4 M2 captive screws (Threaded length 2.5mm; Overall stem length 6mm) to securely fasten the adapter to the chamber, ensuring proper contact between the two components.





1.5 mm Allen key.

3 To mount the adapter on your stage please screw the 4 M3X6 screws.



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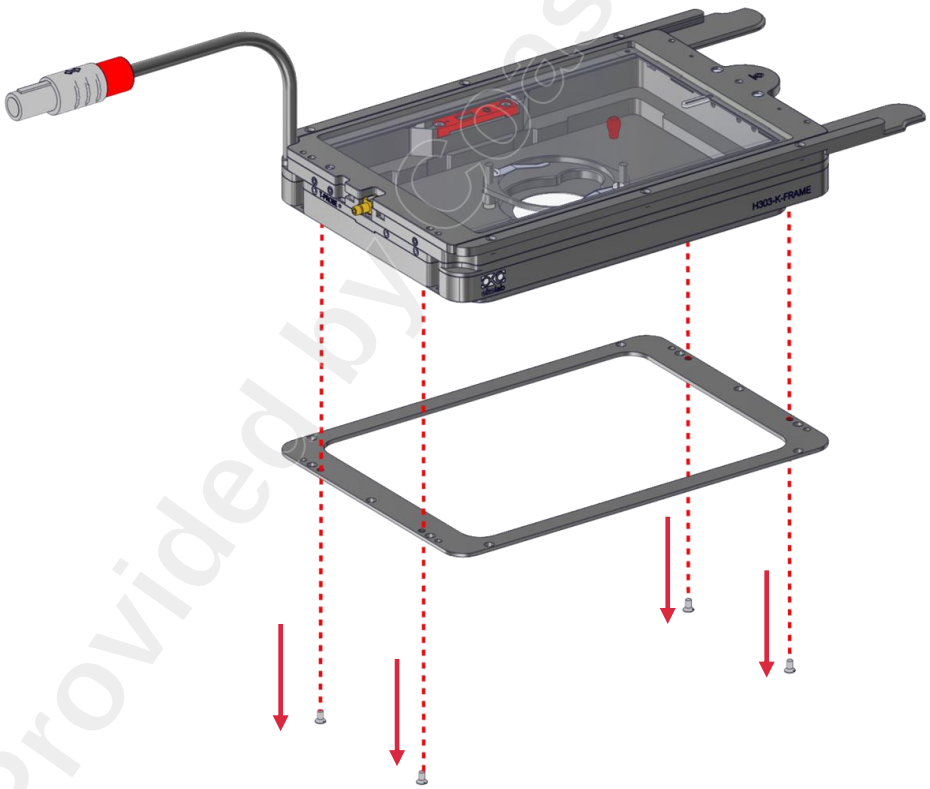
10. Working with Stage Adapters

10.2 Working with FRAME-ZLXXX-OSSU

- **FRAME-ZLXXX-OSSU:** frame adapter to fit K-FRAME chambers into MCL Nano-ZLX00-IX5 and -OSSU piezo



1 To mount FRAME-ZLXXX-OSSU frame adapter please remove the FRAME-STD by unscrewing the M2X4 screws on the bottom of the base.

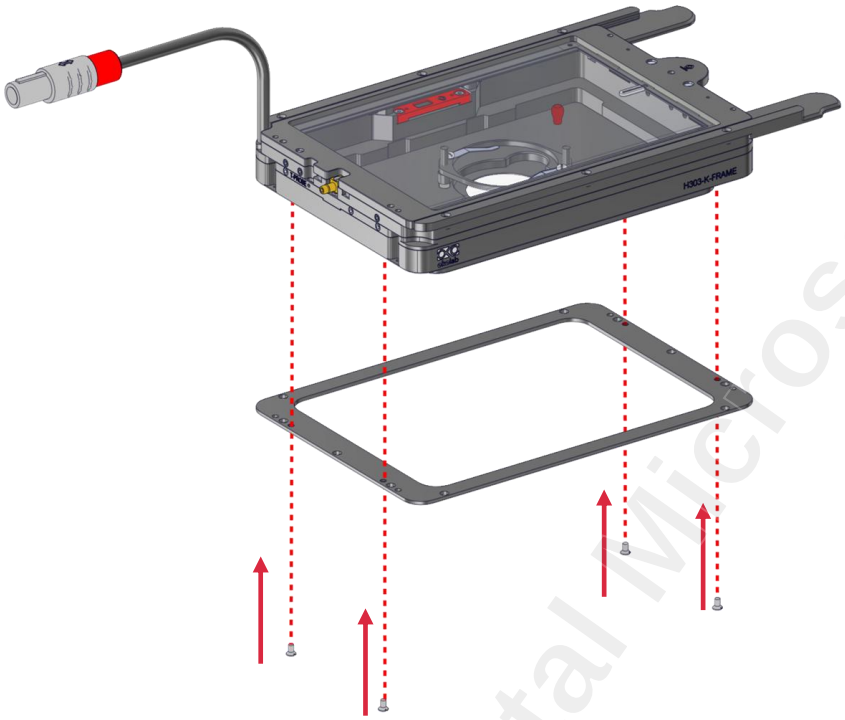


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10. Working with Stage Adapters

10.2 Working with FRAME-ZLXXX-OSSU

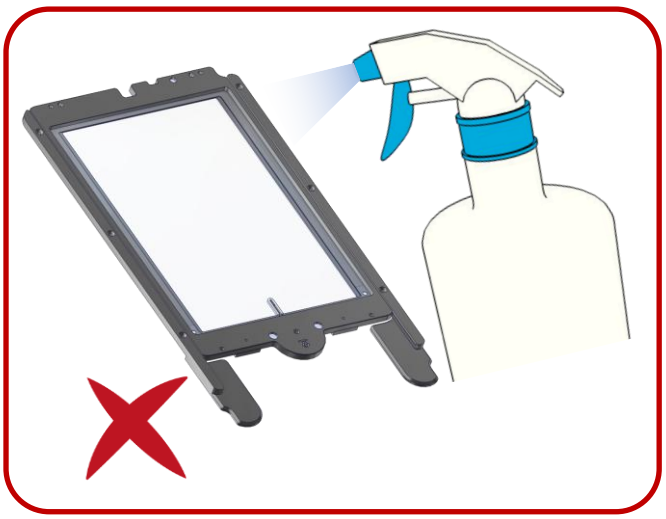
2 Then mount the FRAME-ZLXXX-OSSU by screwing the M2X4 screws on the bottom of the base.

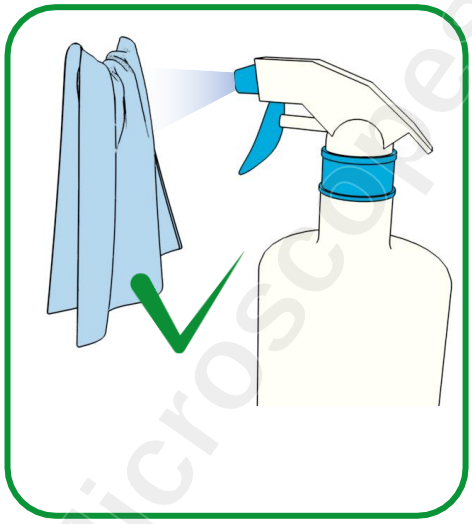


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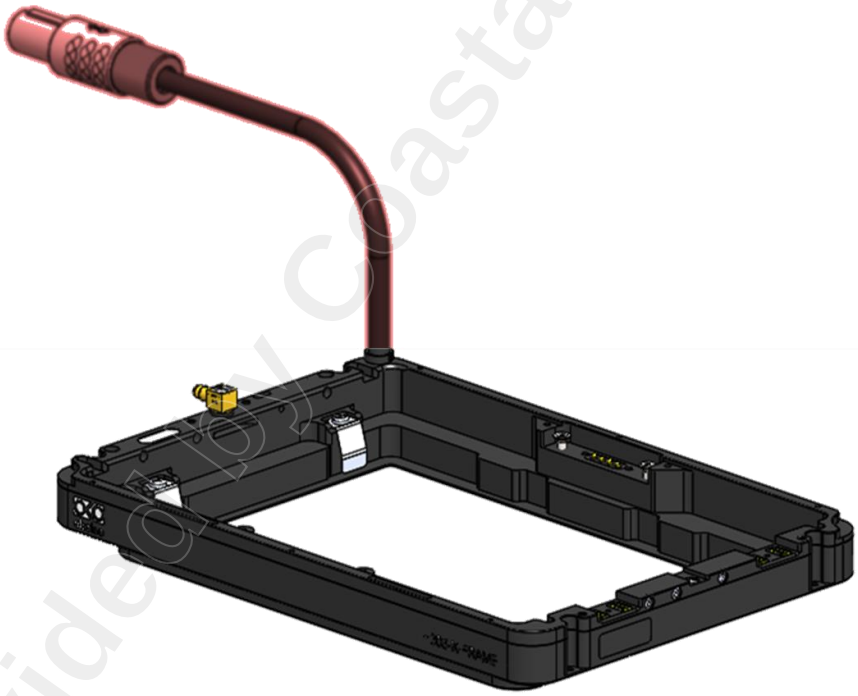
11. Chamber Handling & Cleaning

1 When cleaning the Lid's Glass, avoid spraying liquid directly on the glass, rather dampen a microfiber cloth and use it to clean the glass.





2 During the cleaning of the Chamber Base, It's crucial to isolate the wire to avoid any mishaps that could damage them. Keep the wire away from the cleaning solution and focus on cleaning the plate surface effectively.



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12. Support

To contact one of our engineers please see below, contact us through the live chat on **www.oko-lab.com**. You can request a remote support session anytime, also via video chat. You can reach out to us on the following emails:

For TECHNICAL SUPPORT: support@oko-lab.com

Phone +39 081 308 9987
Fax: +39 081 876 4410
Mobile: +39 348 96807 18

For COMMERCIAL SUPPORT WORLDWIDE: lanzaro@oko-lab.com

Phone +39 081 308 9987
Fax: +39 081 876 4410

For COMMERCIAL SUPPORT US&CANADA: usa@oko-lab.com

For COMMERCIAL SUPPORT CHINA: tong@oko-lab.cn

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