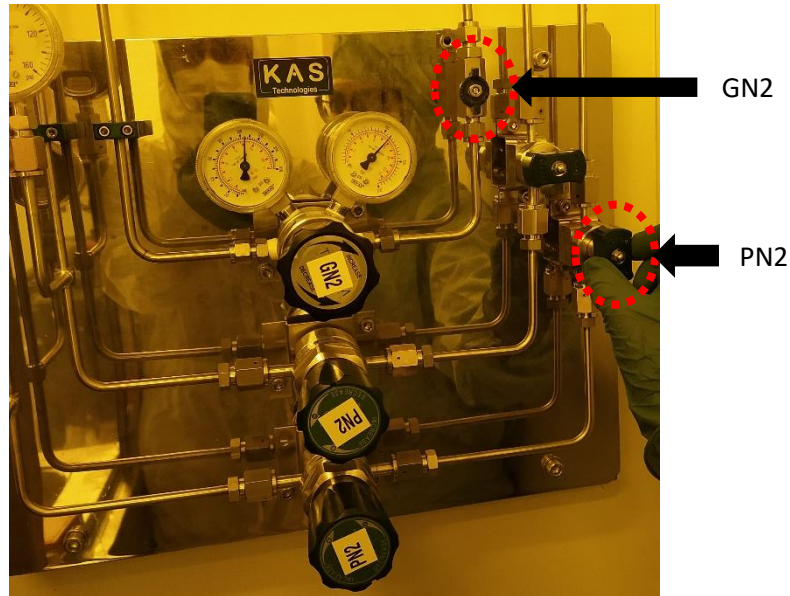


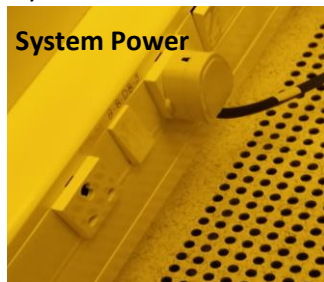
Double Side Mask Aligner – Suss Microtech

Standard Operating Procedure (SOP)

1. Switch on PN2 (CDA) and GN2 (Lamp cooling) vacuum valves. Check the general Nitrogen pressure between 4-6 bars.



2. Turn on the System Power. Check that the Power Switch for the computer system (PC) is ON.



3. Turn on the MAIN Switch on the mask aligner (Black button).



4. Turn on the Lamp power supply using the LPS button (green button) on the mask aligner.
5. Igniting the exposure Lamp Controller:
 - a. Once the LPS button is pressed, the lamp will be in "STAND BY" state, visible on alphanumeric display.
 - b. Press the "ON" key in the control panel. Wait until "Ready" show on the display.
 - c. Press the "CP" key. Wait until "=>>START" shows up.

- d. Press the “START” key. The display shows “LAMP COLD”. Wait until the warm up sequence is completed. The real value of the power of the exposure lamp should show **970 W**.
6. Turn on the control panel display of the system by rotating the knob towards “ON”.



7. To start the process, follow the instructions displayed on the Panel.
 - a. Press “LOAD” button when the display shows “Ready for load”.
 - b. To do only top side alignment, deselect the bottom side alignment by switching off the “BSA” button.
 - c. To load the mask, press “Change Mask” button on the panel.
 - d. Place the mask completely on the mask holder frame such that it covers the vacuum ring.
 - e. Insert the vacuum cable of the holder in the aligner so that the mask is held in vacuum.
 - f. Slide the mask holder inside the aligner as command appears on the panel.
 - g. Press “Change Mask” button again.



8. To load the substrate:
 - a. Click on the "Load" button.
 - b. Follow the command on the panel, and pull the transport slide out. Put the sample on top of the chuck.
 - c. Press "Enter".
 - d. Insert the slide back until it reaches the end stop.
9. To set the critical parameters:
 - a. Click on the "Edit Parameters" tabs
 - b. Use the left/right arrow keys to select the parameters
 - c. Use the up/down arrow keys to change the parameter value
 - d. Click on "Edit Parameters" to set the required values
10. To move the microscope, use the arrow keys.
11. To adjust the substrate use the X,Y & theta manipulators.
12. Press Exposure button to perform the exposure.
13. Wait until the exposure procedure finishes, unload the substrate by pulling the slide out.
14. Switch Off Procedure:
 - a. Unload the mask, using the "Change Mask tab"
 - b. Turn off the Lamp using "OFF" button on the controller
 - c. Wait for 10 mins
 - d. Switch off the Control Panel using ON/OFF knob
 - e. Switch off the MAIN power switch (Black button)
 - f. Switch off the power supply
 - g. Switch off the PN2 and GN2 gas lines