

Allied Mechanical Polisher Operating Instructions

Do not use anything other than DI water in the tool without prior Staff approval

Do not dump anything other than DI water down the fume hood drain without prior staff approval.

Ensure the two digital indicators on the tool are turned off after use

Ensure you fill out the logbook after using the tool

All waste generated from this tool is to be treated as hazardous waste

1. Using the red knurled thumb screws adjust the MultiPrep Head position to allow access to the bowl lid.
2. Remove the bowl lid
3. Ensure the drain screen is installed properly
4. Install the Platen to the Platen base ensuring that the letter "A" aligns properly
5. Using the red knurled thumb screws adjust the MultiPrep Head position to approximately center of the Platen.
6. Install the Parallel Polisher Fixture to the MultiPrep Head
7. Position the Dial Indicator so that it is close to the center of the platen and adjust the MultiPrep Head so that it is over the Dial Indicator tip.
8. Lower the MultiPrep Head using the Vertical Adjustment Knob until it makes contact with the Dial Indicator and is at the middle of the range of the Dial Indicator (approximately; many small adjustments still remain to be made).
9. Using the tool user interface, rotate the MultiPrep Head until the Pivot Pin (flat head screw) on the MultiPrep Head is directly over the tip of the Dial Indicator and stop the rotation (this is the pivot point of the MultiPrep Head).
10. Readjust the Vertical Adjustment Knob and the Dial Indicator such that the number on the Dial indicator is easy to read and in the center of the range of the Dial indicator.
11. Using the tool user interface, rotate the MultiPrep Head until the first Micrometer is over the tip of the Dial Indicator. Adjust the Micrometer to position it was originally set at (your original value at the Pivot Pin).
12. Using the tool user interface, rotate the MultiPrep Head until the second Micrometer is over the tip of the Dial Indicator. Adjust the Micrometer to position it was originally set at (your original value at the Pivot Pin).
13. Repeat steps 9-12 until the deviation on the Dial Indicator during rotation has been minimized.
14. Raise the MultiPrep Head until you have enough clearance to remove the Dial Indicator.
15. Remove the Dial Indicator and return it to its case.
16. Using the red knurled thumb screws adjust the MultiPrep Head position to allow access to the Platen.
17. Ensure that the water nozzle is pointing at the Platen, and turn on the water on the user interface, after a couple seconds turn it off again.
18. Place your abrasive pad on the Platen and use the "Squeeze" to remove all the air bubbles.
19. Using the red knurled thumb screws adjust the MultiPrep Head position to approximately center of the Platen.
20. Turn on the front and rear digital indicators.
21. Lower the Spindle Riser (also called the Cam Riser).
22. Lower the MultiPrep Head using the Vertical Adjustment Knob until it makes contact with the abrasive pad. This will be indicated using the front digital indicator.
23. Zero both digital indicators and then raise the Spindle Riser.
24. Lower the MultiPrep Head using the Vertical Adjustment knob by the amount of material you would like to remove as indicated on the rear digital indicator.
25. Turn on the RPM's, DI water, Oscillation, and spin. Adjust the values accordingly.
26. Slowly lower the MultiPrep Head using the Spindle Riser until you make contact with the abrasive pad.
27. Periodically stop the tool and check how much material you have removed with the independent digital indicator.
28. Once you are done, remove the abrasive pad, Platen Plate, and the Parallel Polisher Fixture. Clean any water off and return these items to the cabinet. Turn off the digital indicators and replace the bowl lid.
29. Fill out the log-book.