Instructions for carbon coating for Leica EM ACE600

Carbon coating (Pulse mode)

(Verify that nitrogen and argon lines are open. GENERALLY: Never close the valves!!!)

Usually the device is ON. If not, the main switch is situated on the right back corner. Press VENT on the screen; wait till the chamber is ventilated.

Open the door by lifting the clasp. Place the samples on the round stage disc, but not above the centre crystal. Use gloves to avoid contaminating the device!!! Close the door.

Press CARBON THREAD button on the home page on the screen. Select the coating thickness and sample height by pressing the +/- buttons. Press START; the coating cycle starts automatically when the vacuum is correct.

Changing a carbon thread - USE GLOVES all the time!!!

Press VENT on the screen; wait till the chamber is ventilated. Open the source cover (i.e. roof panel). Unplug the connector from the leftmost target.

Unscrew the 2 screws to remove the flange. Lift the flange part onto a fresh clean Kimwipe on the table; place it upside down. TIP: 3 clamp screws on the upper row, and 2 on the lower one (Image 1).

Loosen all the 5 clamp screws with a Torx TX 10 key. Remove the broken carbon thread and any thread parts by a brush.

Loop a new carbon thread from the blue coil around the first clamp screw (number 1) and tighten it gently. Then wind the carbon thread around the other clamp screws (numbers 2, 3, 4 and 5). Then tighten the clamp screws 1 and 5. After that, tighten the clamp screws 2, 3 and 4. NB: tighten the screws carefully, but gently to avoid breaking the screws!!!

Check that the carbon thread is perfectly running in the clamping groove (Image 2). Trim the thread ends with sharp scissors. Brush any dirt away.

After this, insert the flange part back on the original place. Plug the connector, tighten gently the two screws. Close the flange. Start the coating cycle normally.

Shut down procedure

After coating cycle, press VENT to ventilate the chamber (or select a new coating cycle).

Press COMPLETE/HOME button to initialize the stage. Open the door, remove your samples. Press VENT again to stop the nitrogen leaking.

Close the door. Press PUMP to recreate the vacuum.