The spacer box is a large source of possible contamination. If you are working with a small spacer size, the cleanliness of the spacer box becomes more important. Even though the box is cleaned by each user when finished, it might be in your best interest to clean it before you begin.

1. Turn on power to the unit by turning on the power strip that is attached with cable ties to the rear of the metal table.

2. Obtain your dry spacer nebulizer and the stock spacer type you require.

3. Turn on the compressed nitrogen utility at the wall across from the wet benches.

4. With the nebulizer NOT installed, depress the foot pedal to check that the compressed gas system is working. If it is, install the nebulizer at the end of the hose.

5. Place 3-4 clean glass vials inside the spacer box to use as a platform for you to rest your substrate on. This keeps the substrates off the floor of the unit, which is likely the largest source of contamination.

6. Place your substrate on top of the vials.

7. Knock the nebulizer against the edge of the table (not the spacer box) to loosen some spacer material which may be held by large static forces to the walls of the nebulizer.

8. Carefully open the doors and direct the nebulizer at the work piece and depress the foot pedal once or twice to direct spacers at your substrate. Shut the door and let the spacers settle for a few seconds.

9. Slowly open the doors, and remove the substrate and inspect for desired spacer density and uniformity. If the space count is too low, return the work piece to the spacer box and spray again. If
you try this a couple of times and the spacer count does not change, the nebulizer needs to be reloaded.

10. To reload the nebulizer, clean a small spatula and blow it off with the nitrogen nozzle. Place the nebulizer in your hand as well as the spacer stock bottle (same hand). Remove the lid of the spacer stock bottle and set down on a clean surface, with the top of the lid down on the table. Unscrew the nebulizer cap and set down on a clean area. Use the spatula to take a small scoop of spacer material and place inside the nebulizer against the inner wall. Place another small scoop along the opposite wall. Set down the spatula, and place the nebulizer cap back on. Then, put the spacer stock bottle cap back on. Then use an IPA wipe to wipe down the spatula before spacer material flies away into the room and contaminates local work space or becomes a breathing hazard.

11. Repeat the process of spraying, loading the nebulizer and respraying, until the desired spacer density and uniformity is reached.

12. Close the doors of the spacer box when you are done, and turn off the power strip and nitrogen utility.

13. When you are done processing those parts, it is time to clean the spacer box. You must work methodically and slowly while doing so in order to effectively clean the box and to avoid creating a breathing hazard. Apply IPA to wipes and slowly wipe the inside surfaces of the spacer box, starting at the top and working your way down. Wipe once or twice and then throw the wipers away. Clean all surfaces very well so you do not leave any appreciable spacer particles behind that can contaminate someone else’s work.

For any questions or issues, contact Bentley Wall 330-221-7048 cell