

WHAT IS CLAIMED IS:

1. A buff process module, comprising:
 - a buff table on which a substrate is mounted;
 - a buff head configured to hold a buff pad for applying a predetermined process to the substrate;
 - a buff arm that supports and swings the buff head;
 - a dresser for dressing the buff pad; and
 - a cleaning mechanism that is disposed on a path along which the buff arm swings between the buff table and the dresser and is for cleaning the buff pad.
2. The buff process module according to claim 1, wherein the cleaning mechanism is a brush-cleaning mechanism.
3. The buff process module according to claim 2, wherein a base is provided in proximity to the dresser, and the brush-cleaning mechanism is installed on the base.
4. The buff process module according to claim 2, wherein the brush-cleaning mechanism includes a nozzle for supplying cleaning fluid toward the buff pad, and an adjustment valve connected with the nozzle and configured to adjust at least one of a flow rate or a pressure of the cleaning fluid.
5. A buff process module comprising:
 - a buff table on which a substrate is mounted;
 - a buff head configured to hold a buff pad for applying a predetermined process to the substrate;
 - a buff arm that supports and swings the buff head;
 - wherein a groove is formed on the surface of the buff pad, and the cleaning mechanism includes an atomizer configured to supply a high pressure cleaning fluid to remove deposit in the groove.
6. The buff process module according to claim 5, wherein the atomizer is disposed below a movement path of the buff pad that faces perpendicularly downward, and the atomizer is

movable.

7. The buff process module according to claim 5, wherein the atomizer is configured to supply the high pressure cleaning fluid while being positioned below the buff arm, and the atomizer is configured to clean a lower surface of the buff arm and the buff pad at the same time.

8. The buff process module according to claim 5, wherein the atomizer includes a plurality of nozzles mounted linearly on the main body, and is configured to supply the high pressure cleaning fluid.

9. The buff process module according to claim 1,
wherein the cleaning mechanism is disposed such that the cleaning mechanism can act on a radius portion of the buff pad attached to the buff head and configured to move between the buff table and the dresser, and can clean the entire surface of the buff pad through rotation of the buff head.

10. The buff process module according to claim 1, wherein the cleaning mechanism can be rotated by a rotary actuator or linearly moved by a cylinder.

11. The buff process module according claim 1, wherein cleaning by the cleaning mechanism is performed in at least any timing of before, during, and after a dressing process.

12. The buff process module according to claim 1, wherein the cleaning fluid is at least one liquid selected from a group consisting of deionized water, a chemical solution and a slurry, or a mixture of the liquid and compressed air, and wherein supply of each of the fluid is switchable.

13. The buff process module according to claim 1, wherein

a buff pad cover is provided in proximity to the buff pad to prevent the dispersion of the cleaning fluid.

14. The buff process module according to claim 13, wherein the buff arm itself has a function of the cover.

15. The buff process module according to claim 1, wherein a fixed cover fixed around the dresser is provided, the fixed cover having a notch formed to avoid contact with the buff arm.

16. The buff process module according to claim 1, wherein the buff pad is cleaned by an ultrasonic cleaning fluid instead of or together with the cleaning fluid.

17. The buff process module according to claim 1,
wherein the buff pad has a groove formed from a center portion to an outer peripheral portion continuously on the surface of the buff pad, and a cleaning fluid outlet is provided at the center portion of the buff pad, and

the cleaning fluid flows from the cleaning fluid outlet under the condition that the buff pad is in contact with the dresser.

18. The buff process module according to claim 17, wherein the groove of the buff pad has an area for reducing a flow rate of the cleaning fluid in proximity to an outermost peripheral portion of the buff pad.

19. A substrate processing apparatus, comprising the buff process module according to claim 1.

20. A buff pad cleaning method for cleaning a buff pad for applying a predetermined process to a substrate while the buff pad is contact with the substrate, comprising:

dressing the buff pad while the buff pad is in contact with the dresser;

moving a buff head to a cleaning mechanism by a buff arm after dressing the buff pad, the buff head holding the buff pad

; and

cleaning the buff pad by the cleaning mechanism while the buff pad is in contact with the cleaning mechanism.

21. The method according to claim 20, wherein the cleaning of the buff pad is performed in parallel with a processing of a substrate on a buff table.