[0039] Referring now to FIG. 5, another example MCA component tray 500 according to the principles of the present disclosure is shown. In this example, each compartment 504 includes a lift pin tray 508.

[0040] Referring now to FIGS. 6A, 6B, and 6C, an example MCA component tray 600 according to the principles of the present disclosure is shown. The MCA component tray 600 includes an MCA pickup tool tray 604 configured to store an MCA pickup tool 608. In other words, the MCA pickup tool tray 604 is shaped to accommodate features of the MCA pickup tool 608. For example only, the MCA pickup tool 608 includes a plunger 612 and an outer sleeve 616. An inner shaft 620 of the plunger 612 is arranged to slide within the outer sleeve 616. As shown in FIG. 6B, an end of the outer sleeve 616 is configured to capture an MCA bearing 624. For example, an inner diameter of the outer sleeve 616 is approximately equal to a diameter of the MCA bearing 624 allowing the outer sleeve 616 to retain the MCA bearing 624 via friction. In this manner, the MCA pickup tool 608 may be used to retrieve the MCA bearing 624 from MCA bearing cups 628, pin holes 632, etc. Conversely, depressing the plunger 612 (e.g., with a thumb while the outer sleeve 616 is secured by one or more fingers) causes the inner shaft 620 to eject the MCA bearing 624 from the outer sleeve 616 as shown in FIG. 6C.

[0041] Referring now to FIGS. 7, 8A, and 8B, an example MCA component tray 700 includes a handle 704. For illustration purposes, only a portion of the MCA component tray 700 including the handle 704 and MCA bearing cups 708 is shown in FIGS. 8A and 8B. For example, the handle 704 may be provided in a center region between the MCA bearing cups 708. As shown for example only, the handle 704 is shaped similar to a

CLAIMS

What is claimed is:

1. A tray for storing minimum contact area (MCA) components of a substrate processing system, the tray comprising:

a first compartment including at least one of a first lift pin tray and a first plurality of holes, wherein

the first lift pin tray includes a plurality of slots configured to retain lift pins of the substrate processing system, and

the first plurality of holes is configured to receive MCA pins of the substrate processing system; and

a first cup arranged adjacent to the first compartment, wherein the first cup includes a wall at least partially surrounding the first cup, wherein the wall separates the first cup from the first compartment, and wherein an upper edge of the wall extends above a bottom surface of the first compartment.

2. The tray of claim 1, wherein the tray includes a second compartment and a second cup arranged adjacent to the second compartment.

3. The tray of claim 2, wherein the second compartment includes at least one of a second lift pin tray and a second plurality of holes.

4. The tray of claim 1, wherein the first lift pin tray includes identifiers of respective ones of the lift pins.

14. The tray of claim 13, wherein the wall at least partially surrounding the first cup includes a notch aligned with the guide channel.

15. The tray of claim 1, wherein a bottom surface of the first cup is at least one of flat and concave.

16. The tray of claim 1, wherein and interface between sidewalls and a bottom surface of the first cup has a radius of curvature between 0.375 inches and 0.625 inches.