

WHAT IS CLAIMED IS:

1. A mounting apparatus which mounts a semiconductor chip to a mounted body which is a substrate or another semiconductor chip via an adhesive material, comprising:

a bonding stage on which the substrate is placed;

5 a base supporting the bonding stage;

a mounting head for performing a temporary press-attachment process in which the semiconductor chip is suction-held and temporarily press-attached to the mounted body and a final press-attachment process in which the temporarily press-attached semiconductor chip is finally press-attached;

10 a film arrangement mechanism which is arranged on the bonding stage or the base and interposes a cover film between the temporarily press-attached semiconductor chip and the mounting head at the time of the final press-attachment process; and

a controller which controls a driving of the mounting head and the film arrangement mechanism, wherein

15 the film arrangement mechanism comprises:

a film feed-out mechanism which has a pair of rollers with the cover film extended there-between and successively feeds out a new cover film; and

a film movement mechanism moving the cover film in a horizontal direction with respect to the substrate,

20 wherein the controller controls the film movement mechanism in a manner that, during the temporary press-attachment process, the cover film is positioned at a retracted position horizontally separated from mounting sections where the semiconductor chip is temporarily press-attached, and during the final press-attachment process, the cover film is positioned at an intermediate position directly above the semiconductor chip to be finally press-attached,

25 wherein the film feed-out mechanism extends the cover film in a manner that the cover

film covers a plurality of the mounting sections, in which the final press-attachment process is performed by dividing into multiple final press-attachment processes, from above in the intermediate position; and

until the multiple final press-attachment processes are completed, the controller neither
5 moves nor feeds the cover film so that the cover film is positioned in the intermediate position to be in an idling status,

when the multiple final press-attachment processes are completed, the controller drives the film movement mechanism and moves the film movement mechanism to the position where the cover film covers a plurality of new mounting sections from above, and the controller drives
10 the film feed-out mechanism and feeds the cover film by a distance corresponding to the plurality of mounting sections.

2. The mounting apparatus according to claim 1, wherein

the mounting sections for mounting the semiconductor chip are defined in a two-dimensional array shape on the substrate, and

15 the film feed-out mechanism extends the cover film to cover the two-dimensional array-shaped mounting sections in columns.

3. The mounting apparatus according to claim 1 or 2, wherein

the controller causes the mounting head to continuously execute the temporary press-attachment of the semiconductor chip in the plurality of mounting sections, and then causes the
20 mounting head to continuously execute the final press-attachment of a plurality of temporarily press-attached semiconductor chips.

4. The mounting apparatus according to any one of claims 1 to 3, wherein

the film arrangement mechanism further comprises an elevating mechanism which elevates or lowers the cover film with respect to the bonding stage.

25 5. The mounting apparatus according to any one of claims 1 to 4, wherein

the film feed-out mechanism comprises an interference member which interferes with a part of the cover film pressed and bent downward by the mounting head to thereby assist in eliminating the bending.