

Claims

1. An elastic membrane to be used for a substrate holding device, the substrate holding device having a head body to which the elastic membrane is attachable, the elastic membrane comprising:

a contact portion configured to come into contact with a substrate;

an annular side wall provided to stand on an outer peripheral end of the contact portion;

a first partition wall linearly extending inward in a radial direction in sectional view from the side wall and including a first engaging portion on a distal end to be engaged with the head body; and

a second partition wall extending inward and upward in the radial direction in sectional view from an outer peripheral end portion of the contact portion and including a second engaging portion on a distal end to be engaged with the head body, wherein

the first partition wall, the second partition wall, and the annular side wall constitute an edge pressure chamber for pressing an edge of the substrate, wherein an interval between the first partition wall and the second partition wall gradually increases from the first engaging portion and the second engaging portion toward the side wall and wherein the second partition wall is linearly

extending substantially all the way from the outer peripheral end portion to the second engaging portion.

2. The elastic membrane according to claim 1, wherein the first partition wall and upper portion of the annular side wall constitute an upper edge pressure chamber, an outer surface of the upper portion of the annular side wall is concave.

3. The elastic membrane according to claim 2, wherein the upper portion of the annular side wall has a bent portion that bents inward in the radial direction in a protruding manner to makes the outer surface concave.

4. The elastic membrane according to claim 1, further comprising a third partition wall linearly extending inward and upward in the radial direction in sectional view and provided inner side of the second partition wall, wherein the second partition wall and the third partition wall constitute an intermediate pressure chamber.

5. The elastic membrane according to claim 4, wherein the third partition wall extends substantially parallel to the second partition wall.