

ABSTRACT

The polishing device includes an edge chamber that presses the surface to be polished against the polishing pad by pressing a back side of the surface to be polished of the wafer, a thickness measuring unit that estimates a remaining film profile of the surface to be polished of the wafer in realtime during polishing, and a closed loop control device that controls a pressing force on the back side of the surface to be polished by the edge chamber in accordance with a measurement result by the thickness measuring unit during polishing. The closed loop control device controls not only the pressing by the edge chamber during polishing, but also the pressure of a retainer ring as a periphery of the edge chamber affecting the pressing of the surface to be polished against the polishing pad.

Figure 4