thickness distribution information acquired for the wafer to be polished or the wafer subjected to the same processing treatment as that for the wafer to be polished,

determines any one pressure of Pc and Pe, and determines the other pressure based on the determined pressure and the difference in pressure, and

determines the pressure Pg to be applied from the head main body part downward by pressing the head main body part, based on a set value Pr of a contact pressure to be applied to the lower surface of the second ring-shaped member due to contact with the polishing pad at the time of polishing.

[0069] The above polishing condition determining part can determine Pg based on the ratio Pr/Pt of Pr and the reference value Pt of the contact pressure to be applied to the lower surface of the second ring-shaped member, and the ratio Pe/Pc of Pe and Pc. The determination of Pg can be performed by calculating Pg from the mathematical relation of the ratio Pr/Pt, the ratio Pe/Pc, and Pg. Examples of the mathematical relation include the previously shown equation A. The equation A can be the previously shown equation A-1.

[0070] Various determinations executed by the above polishing condition determining part are as described previously regarding the above polishing method.

[0071] Fig. 11 is a schematic view showing the configuration of one example of the above polishing device. In Fig. 11, the wafer polishing device 1 includes a polishing condition determining part 2 and a polishing part 3. As for the polishing head 10, the polishing pad 41, and the surface plate 42 included in the polishing part 3, the previous description can be referenced.

[0072] The polishing condition determining part 2 has an in-plane thickness distribution information input part 201 and a determination part 202. To the in-plane thickness distribution information input part 201, the in-plane thickness distribution information acquired for the wafer to be polished or the wafer subjected to the same processing treatment as that for the wafer to be polished is inputted. The wafer polishing device 1 can include a wafer thickness measurement part (not shown). Introduction of the wafer to be measured to the wafer thickness measurement part can be performed manually or automatically. For example, the polishing step can be automated so that the wafer to be polished before being introduced to the polishing part 3 is introduced to the wafer thickness measurement part. The determination part 202 receives or retrieves the in-plane thickness distribution information from the in-plane thickness distribution information input part 201, and determines Pg, Pc, and