

Abstract

A substrate processing apparatus for polishing a substrate by pressing the substrate against a polishing pad, comprises: an acoustic sensor having a sensor body that detects polishing sound of the substrate and outputs the polishing sound as an acoustic signal, and a cover member that houses the sensor body; an end point detection unit that detects an end point of polishing of the substrate from the acoustic signal; and a gas supply device that supplies a gas into the cover member so as to prevent adhesion of moisture (water droplets and water vapor) to the sensor body. The gas supply device is connected to the sensor body on an opposite side of a detection surface for the polishing sound, a groove for passing the gas from the gas supply device is formed in the cover member, and a plurality of micro openings for passing the gas from the gas supply device are formed on a waterproof sheet.

Figure 8