

DESCRIPTION

POLISHING HEAD AND POLISHING DEVICE

TECHNICAL FIELD

[0001]

The present invention relates to a polishing head for holding a workpiece when a front surface of the workpiece is polished and a polishing apparatus provided with the polishing head, particularly to a polishing head for holding a workpiece on an elastic film and a polishing apparatus with the polishing head.

BACKGROUND ART

[0002]

In recent years, higher integration of semiconductor devices places demand for higher flatness of semiconductor wafers used in such devices. The higher flatness up to near the edge of wafers is also needed to raise the yield of semiconductor chips.

The shape of finished semiconductor wafers depends on a final mirror polishing process. For a 300-mm-diameter silicon wafer, in particular, primary polishing by double-side polishing is performed to meet strict specifications of the flatness, and then secondary polishing and finish polishing by single-side polishing are performed to remove scratches on a wafer surface or to improve surface roughness.

[0003]

The secondary polishing and finish polishing by single-side polishing need to maintain or improve flatness obtained by the primary polishing by double-side polishing and to finish the front surface of a

DESCRIPTION

POLISHING HEAD AND POLISHING APPARATUS

TECHNICAL FIELD

[0001]

The present invention relates to a polishing head for holding a workpiece when a front surface of the workpiece is polished and a polishing apparatus provided with the polishing head, particularly to a polishing head for holding a workpiece on an elastic film and a polishing apparatus with the polishing head.

BACKGROUND ART

[0002]

In recent years, higher integration of semiconductor devices places demand for higher flatness of semiconductor wafers used in such devices. The higher flatness up to near the edge of wafers is also needed to raise the yield of semiconductor chips.

The shape of finished semiconductor wafers depends on a final mirror polishing process. For a 300-mm-diameter silicon wafer, in particular, primary polishing by double-side polishing is performed to meet strict specifications of the flatness, and then secondary polishing and finish polishing by single-side polishing are performed to remove scratches on a wafer surface or to improve surface roughness.

[0003]

The secondary polishing and finish polishing by single-side polishing need to maintain or improve flatness obtained by the primary polishing by double-side polishing and to finish the front surface of a