What is claimed is:

1. A substrate polishing system comprising a first substrate polishing apparatus and a second substrate polishing apparatus, each of which comprises a film thickness sensor for measuring a film thickness of a layer to be polished of a substrate and performing polishing the layer to be polished by pressing the substrate against a polishing pad,

wherein the first substrate polishing apparatus outputs a difference, as a first offset value, between an output value of a film thickness sensor when an underlayer of the layer to be polished is exposed and an output value of the film thickness sensor when the substrate is not present,

wherein the second substrate polishing apparatus comprises:

a storage unit that stores information of the first offset value;

an output correction unit that corrects an output value from a film thickness sensor based on the first offset value; and

an end point detection unit that outputs a control signal indicating an end point of substrate polishing when a measured value of the film thickness of the layer to be polished calculated based on the corrected output value reaches a target value.

2. The substrate polishing system according to claim 1,

wherein the second substrate polishing apparatus stores a difference, as a second offset value, between the output value

of the film thickness sensor when the underlayer of the layer to be polished is exposed and the output value of the film thickness sensor when the substrate is not present in the storage unit, and

wherein the output correction unit corrects the output value from the film thickness sensor based on the first offset value and the second offset value.

3. The substrate polishing system according to claim 2, wherein the second substrate polishing apparatus corrects the output value from the film thickness sensor by adding to the output value from the film thickness sensor, a correction value calculated by the following expression:

$$\Delta V = (V_{OFFSET1} \cdot \alpha - V_{OFFSET2})$$

where, $V_{OFFSET1}$ is the first offset value, $V_{OFFSET2}$ is the second offset value and α is a weight value.

4. The substrate polishing system according to claim 1, wherein the second substrate polishing apparatus corrects the target value based on an amount of wear of the polishing pad.

5. The substrate polishing system according to claim 1, further comprising a polishing management server that stores identification information of the substrate in association with the first offset value,

wherein the first substrate polishing apparatus transmits the first offset value in association with the identification information of the substrate to the polishing management server, and

the second substrate polishing apparatus comprises a reading unit that acquires the identification information of the substrate to be polished and acquires the first offset value corresponding to the identification information from the polishing management server.

6. The substrate polishing system according to claim 1, wherein the film thickness sensor is an eddy current sensor.

7. A substrate polishing method for sequentially polishing layers to be polished using a first substrate polishing apparatus and a second substrate polishing apparatus, each of which comprises a film thickness sensor for measuring a film thickness of the layers to be polished of a substrate and polishing the layers to be polished by pressing the substrate against a polishing pad,

wherein the first substrate polishing apparatus outputs a difference, as a first offset value, between an output value of a film thickness sensor when an underlayer of the layer to be polished is exposed and an output value of the film thickness sensor when the substrate is not present,

wherein the second substrate polishing apparatus:

stores information of the first offset value in a storage unit;

corrects an output value from a film thickness sensor based on the first offset value; and

outputs a control signal indicating an end point of substrate polishing when a measured value of the film

thickness of each of the layers to be polished calculated based on the corrected output value reaches a target value.

8. A substrate polishing apparatus comprising:

a polishing head for polishing a layer to be polished by pressing a substrate comprising the layer to be polished against a polishing pad;

a film thickness sensor for measuring a film thickness of the layer to be polished;

a storage unit that stores therein information indicating a difference, as a first offset value, between an output value of the film thickness sensor when an underlayer of the layer to be polished is exposed and an output value of the film thickness sensor when the substrate is not present in past polishing of the layer to be polished by another polishing apparatus;

an output correction unit that corrects an output value from the film thickness sensor based on the first offset value; and

an end point detection unit that outputs a control signal indicating an end point of substrate polishing when a measured value of the film thickness of the layer to be polished based on the corrected output value reaches a target value.