WHAT IS CLAIMED IS:

1. A processing apparatus comprising:

a holding unit for holding a workpiece thereon;

a processing unit for processing the workpiece held on the holding unit;

a moving mechanism for moving the holding unit and the processing unit relatively to each other;

a processed state measuring unit for measuring a processed state of the workpiece; and

a controller for controlling the processing unit, the moving mechanism, and the processed state measuring unit,

wherein the controller acquires processed state information of the workpiece from the processed state measuring unit, acquires vibration information regarding vibrations that are being produced while the processed state information is acquired, links the processed state information and the vibration information that have been acquired with each other, and stores the processed state information and the vibration information that have been linked with each other, and

wherein the controller determines, based on the vibration information linked with the processed state information, whether reliability of the processed-state

information is reduced.

2. The processing apparatus according to claim 1,

wherein the vibration information is represented by an operation state of the processing apparatus.

3. The processing apparatus according to claim 1, further comprising:

a vibration measuring unit for measuring vibration data representing the vibration information.

4. The processing apparatus according to claim 2,

wherein the controller acquires again processed state information if the controller decides that the acquired vibration information is represented by a predetermined operation state.

5. The processing apparatus according to claim 3,

wherein the controller acquires again processed state information if the controller decides that a vibration value is equal to or larger than an allowable value, from the acquired vibration information.

6. The processing apparatus according to claim 1,

wherein the controller

stores in advance a correlation between processed state information acquired when there are no vibrations and processed state information acquired when there are vibrations, and

corrects processed state information that has been newly acquired, to the processed state information acquired when there are no vibrations, on a basis of the correlation.

7. The processing apparatus according to claim 1,

wherein the controller is able to establish a decision criterion used in determining whether or not a processed result is acceptable, from the processed state information of the workpiece, and

the decision criterion is variable depending on a magnitude of vibrations represented by the vibration information linked with the processed state information.

8. The processing apparatus according to claim 1,

wherein the processed state measuring unit includes a three-dimensional measuring unit for three-dimensionally measuring the workpiece along an X-axis, a Y-axis, and a Z-axis that extend perpendicularly to one another.