WHAT IS CLAIMED IS:

1. A processing apparatus comprising:

a chuck table for holding a workpiece; and

processing means for processing said workpiece held on said chuck table;

said processing means including

a spindle,

a spindle housing for rotatably supporting said spindle, said spindle housing having an air supply passage, an air supply port connected to said air supply passage, an air discharge passage, and an air discharge port connected to said air discharge passage,

an air bearing defined between said spindle and said spindle housing, said air bearing communicating with said air supply passage and said air discharge passage to support said spindle by using high-pressure air,

a tool mounted on the front end of said spindle,

a high-pressure air source for supplying said high-pressure air,

an air supply line for connecting said high-pressure air source to said air supply port,

a pressure gauge provided on said air supply line for detecting the pressure of said high-pressure air in said air supply line, and

a flowmeter provided on said air supply line

for detecting the flow rate of said high-pressure air in said air supply line; and

a control means in communication with said pressure gauge and said flowmeter, said control means including an output interface and configured to store a designated range of pressure values and a designated range of flow rate values, wherein said control means determines if the pressure of said high-pressure air in said air supply line detected by said pressure gauge is within said designated range of pressure values, and if said flow rate of said high-pressure air in said air supply line detected by said flowmeter is within said designated range of flow rate values, and

provides a first warning to the operator when the pressure value detected by said pressure gauge is in the allowable range and the flow rate detected by said flowmeter is greater than said designated range of flow rate values indicating that an air leakage has occurred in said air supply passage or said air discharge passage; and

provides a second warning to the operator when the pressure value detected by said pressure gauge is in the allowable range and the flow rate detected by said flowmeter is less than said designated range of flow rate values indicating that one of said air supply passage or said air discharge passage is clogged with foreign matter,

wherein said first warning is different from

said second warning.

2. The processing apparatus according to claim 1, wherein said designated range of pressure values is 0.5 to 0.6 MPa.

3. The processing apparatus according to claim 2, wherein said designated range of flow rate values is 48 to 52 liters/minute.

4. The processing apparatus according to claim 2, wherein said designated range of flow rate values is 48 to 52 liters/minute.

5. The processing apparatus according to claim 1, wherein said first warning and said second warning includes one of sounding of a buzzer, indicating an abnormality on a monitor, and light of a red lamp.

6. The processing apparatus according to claim 1, wherein said spindle is arranged to extend horizontally.

7. The processing apparatus according to claim 1, further comprising providing a third warning to an operator on the output interface when the pressure detected by said pressure gauge is not within said designated range of pressure values, wherein said third warning is different from said first warning and said second warning.

8. The processing apparatus according to claim 1, wherein said first warning is associated with a first visual display and said second warning is associated with a second

visual display, and wherein said first visual display is different from said second visual display.

9. The processing apparatus according to claim 8, wherein said first visual display is a first color and said second visual display is a second color.

10. The processing apparatus according to claim 8, wherein said first visual display is a first abnormality flag and said second visual display is a second abnormality flag.

11. A processing apparatus comprising:

a chuck table for holding a workpiece; and

processing means for processing said workpiece held on said chuck table;

said processing means including:

a spindle;

a spindle housing for rotatably supporting said spindle, said spindle housing having an air supply passage, an air supply port connected to said air supply passage, an air discharge passage, and an air discharge port connected to said air discharge passage,

an air bearing defined between said spindle and said spindle housing said air bearing communicating with said air supply passage and said air discharge passage to support said spindle by using high-pressure air,

a tool mounted on the front end of said spindle,

a high-pressure air source for supplying said

high-pressure air,

an air supply line for connecting said high-pressure air source to said air supply port,

a pressure gauge provided on said air supply line for detecting the pressure of said high-pressure air in said air supply line; and

a flowmeter provided on said air supply line for detecting the flow rate of said high-pressure air in said air supply line; and

a control means in communication with said pressure gauge and said flowmeter, said control means including an output interface and configured to store a designated range of pressure values and a designated range of flow rate values, wherein said control means determines if the pressure of said high-pressure air in said air supply line detected by said pressure gauge is within said designated range of pressure values, and if said flow rate of said high-pressure air in said air supply line detected by said flowmeter is within said designated range of flow rate values, wherein said control means:

sets an abnormality flag to one when the pressure of said high-pressure air in said air supply line detected by said pressure gauge is not within said designated range of pressure values;

sets an abnormality flag to two when the pressure of said high-pressure air in said air supply line

detected by said pressure gauge is within said designated range of pressure values, and said the flow rate detected by said flowmeter is less than said designated range of flow rate values; and

sets an abnormality flag to three when the pressure of said high-pressure air in said air supply line detected by said pressure gauge is within said designated range of pressure values, and said the flow rate detected by said flowmeter is greater than said designated range of flow rate values; and

providing a warning to the operator when the control means sets the abnormality flag to one, two or three.

12. The processing apparatus according to claim 11, wherein a first warning is associated with the abnormality flag set to one, a second warning associated with the abnormality flag set to two and a third warning is associated with the abnormality flag set to three.

13. The processing apparatus according to claim 12, wherein said first warning, said second warning and said third warning are different.

14. The processing apparatus according to claim 12, wherein said first warning is associated with a first color, said second warning is associated with a second color and said third warning is associated with a third color.