CLAIMS

1. A cleaning device for cleaning a liquid contact part of a discharge device that discharges a liquid material from a nozzle by action of a mechanically-operated rod-like member,

the liquid contact part including an operating space into which the rod-like member is inserted, and a supply flow path through which the liquid material is supplied to the operating space,

the cleaning device comprising:

a cleaning fluid supply tank that supplies a cleaning fluid by action of compressed gas supplied from a compressed gas source;

a plurality of supply mechanisms that supply the compressed gas or the cleaning fluid; the cleaning device being characterized in that it further comprises:

a liquid contact part fixing jig that is fluidly connected to the plural supply mechanisms;

a cleaning fluid collection tank that is fluidly connected to the liquid contact part fixing jig; and

a control device,

wherein the supply mechanisms supply the cleaning fluid in accordance with pressure values that are specified separately for the supply mechanisms by the control device.

2. The cleaning device according to claim 1, wherein the supply mechanisms supply the compressed gas in accordance with pressure values that are specified separately for the supply mechanisms by the control device.

3. The cleaning device according to claim 1 or 2, wherein the supply mechanism comprises:

a regulator that adjusts pressure of the compressed gas, supplied from the compressed gas source, to a desired level in accordance with a pressure value specified by the control device;

a first upstream on-off valve fluidly connected to the regulator;

a second upstream on-off valve fluidly connected to the cleaning fluid supply tank;

a sub-tank fluidly connected to the first and second upstream on-off valves and to the liquid contact part fixing jig; and

a downstream on-off valve disposed between the sub-tank and the liquid contact part fixing jig.

4. The cleaning device according to any one of claims 1 to 3, wherein the compressed gas supplied from the compressed gas source is supplied to the cleaning fluid supply tank through a plurality of regulators.

5. The cleaning device according to any one of claims 1 to 4, wherein the liquid contact part fixing jig is constituted by a plurality of members that are fixed together by a fastener in a separable manner.

6. A cleaning method using the cleaning device according to any one of claims 1 to 5, the cleaning method comprising:

a gas cleaning step of supplying, by the supply mechanisms, the compressed gas under adjusted pressure to the liquid contact part fixing jig;

a fluid cleaning step of supplying, by the supply mechanisms, the cleaning fluid to the liquid contact part fixing jig by action of the compressed gas under adjusted pressure; and

a drying step of supplying, by the supply mechanisms, the compressed gas under adjusted pressure to the liquid contact part fixing jig.

7. A method of cleaning a liquid contact part of a discharge device that discharges a liquid material from a nozzle by action of a mechanically-operated rod-like member,

the liquid contact part including an operating space into which the rod-like member is inserted, and a supply flow path through which the liquid material is supplied to the operating space,

the method comprising:

a liquid contact part accommodating step of accommodating the liquid contact part in a liquid contact part fixing jig;

a gas cleaning step of supplying compressed gas under adjusted pressure from a plurality of supply mechanisms to the liquid contact part fixing jig that accommodates the liquid contact part;

a fluid cleaning step of supplying a cleaning fluid from the plurality of supply mechanisms to the liquid contact part fixing jig by action of the compressed gas under the adjusted pressure, wherein the cleaning fluid is supplied in accordance with pressure values that are specified separately for the supply mechanisms; and

a drying step of supplying the compressed gas under adjusted pressure to the liquid contact part fixing jig.