CLAIMS

1. A sample processing device comprising:

an analysis chip including a flow path on a lower surface side;

a drive portion including a plurality of recesses on an upper surface side;

an elastic membrane positioned between the analysis chip and the drive portion; and

an air pressure control portion configured to switch whether the elastic membrane is closely attached to an analysis chip side or closely attached to a drive portion side, wherein

the analysis chip includes a metering flow path for metering a liquid and at least four branch flow paths branched from the metering flow path,

the drive portion includes a recess below each of an end of the four branch flow paths not on a metering flow path side, and

each recess is in communication with the air pressure control portion.

2. The sample processing device according to claim 1, Wherein

two branch flow paths of the four branch flow paths are a liquid delivery flow path configured to deliver a liquid, and the remaining two branch flow paths are an air supply flow path configured to deliver a gas,

a further pair of flow path and recess is provided on an upstream side or downstream side of the liquid delivery flow path, and a further pair of flow path and

recess is provided on an upstream side or downstream side of the air supply flow path, and

these recesses are also in communication with the air pressure control portion.

3. The sample processing device according to claim 1, wherein

two branch flow paths of the four branch flow paths are a liquid delivery flow path configured to deliver a liquid, and the remaining two branch flow paths are an air supply flow path configured to deliver a gas,

two further pairs of flow path and recess are provided on an upstream side or downstream side of the liquid delivery flow path, and two further pairs of flow path and recess are provided on an upstream side or downstream side of the air supply flow path, and

both

a) the pair of recesses related to the pair of flow paths associated with liquid delivery, and

b) the pair of recesses related to the pair of flow paths associated with air supply

are also in communication with the air pressure control portion.

4. The sample processing device according to claim 2 or 3, wherein

the air pressure control portion controls movement of the elastic membrane, and delivers the liquid to the recess located downstream of a position of the liquid before controlling the elastic membrane

5. The sample processing device according to any one of claims 2 to 4, wherein

the liquid delivery flow path is used to fill the metering flow path with the liquid, and then the air supply flow path is used to flow the liquid in the metering flow path to the downstream side.

6. The sample processing device according to claims 2 to 4 comprising an additional pair of branch flow path and recess is provided in a branch flow path, which is the liquid delivery flow path.