

CONDENSATE WATER SEPARATION DEVICE AND SEMICONDUCTOR PROCESS DEVICE

ABSTRACT

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There is provided a condensate water separation device applied to a gas discharge system of a semiconductor process device, the gas discharge system includes an exhaust pipeline, a pressure control valve group (5) is disposed on the exhaust pipeline, and the condensate water separation device includes: a device body (1), which
10 is provided therein with a zigzag gas passage, the gas passage including a plurality of passages sequentially communicated with each other along a gas flow direction, a gas inlet end (A1) of a most upstream passage (1a) being used as a gas inlet and configured to be connected to an outlet end of the pressure control valve group (5), a gas outlet end (A4) of a most downstream passage (1d) being used as a gas outlet and being
15 higher than a gas inlet end of the downstream passage (1d), and at least one other passage having a gas outlet end lower than a gas inlet end; and a one-way drainage structure (7), which is connected to a joint between the at least one other passage having the gas outlet end lower than the gas inlet end and the passage downstream therefrom, and is configured to drain condensate water flowing through the one-way
20 drainage structure (7). There is further provided a semiconductor process device, including a reaction chamber (34) and a gas discharge system, and the gas discharge system includes: an exhaust pipeline connected to the reaction chamber (34); a pressure control valve group (5) disposed on the exhaust pipeline; and the condensate water separation device having the gas inlet connected to an outlet end of the pressure control
25 valve group (5).

Fig. 2