

ABSTRACT OF THE DISCLOSURE
FLOW RATE RATIO VARIABLE TYPE FLUID SUPPLY APPARATUS

A flow rate ratio variable type diverted gas supply apparatus with which a gas is supplied to a chamber of semiconductor manufacturing facilities achieves a substantial reduction in size and cost, and makes it possible that a flow rate ratio is regulated at ease and with high accuracy.

With a flow rate ratio variable type fluid supply apparatus with which a gas of a flow rate Q supplied from a flow rate control system 6 is diverted and flowed to a No. 1 flow diverting pipe passage 1 and a No. 2 flow diverting pipe passage 2 with prescribed flow rates Q_1/Q_0 so that the gas of flow rate Q is supplied to a chamber through both flow diverting pipe passages 1, 2, and the No. 1 orifice 3 having an opening area S_1 is installed on the aforementioned No. 1 flow diverting pipe passage 1, and the aforementioned No. 2 flow diverting pipe passage 2 is made to be a pipe passage to which a plurality of branch pipe passages 2a~2n are connected in parallel, and orifices 4a~4n having opening area $S_{2a}~S_{2n}$ are installed on the aforementioned branch pipe passages 2a~2n respectively, and open/close valves $V_b~V_n$ are installed on all, or some of, the aforementioned branch pipe passages, thus making it possible that gas of a flow rate Q is diverted and flowed to the flow diverting pipe passages 1, 2 with the flow rate ratio Q_1/Q_0 equivalent to the ratio of the No. 1 orifice 3 of the aforementioned No. 1 flow diverting pipe passage 1 and the total opening area S_{20} of the flow passable orifices of the aforementioned No. 2 flow diverting pipe passage 2 by means of regulating the total opening area S_{20} of flow passable orifices of the No. 2 flow diverting pipe passage by opening/closing operations of said open/close valves $V_b~V_n$.

Figure 1.