

METHOD AND APPARATUS FOR CONTROLLING GAS FLOW TO A PROCESSING CHAMBER

ABSTRACT

A method and apparatus for delivering gases to a semiconductor processing system are provided. In one embodiment, an apparatus for delivering gases to a semiconductor processing system includes a plurality of gas input and output lines having inlet and outlet ports. Connecting lines couple respective pairs of the gas input and gas output lines. Connecting valves are arranged to control flow through the respective connecting lines. Mass gas flow controllers are arranged to control flow into respective inlet ports. In another embodiment, a method includes providing a manifold having at least a plurality of inlet that may be selectively coupled to at least one of a plurality of outlets, flowing one or more gases through the manifold to a vacuum environment by-passing the processing chamber prior to processing or to a calibration circuit, and flowing the one or more gases into the processing chamber during substrate processing.

(Fig. 5)