

ABSTRACT

Two bypass passages 32 and 33 are formed in a valve casing 21 of a main valve 18 provided on a pipe 13 of an exhaust system 12 of a heat treatment furnace 1. The bypass passages 32 and 33 are opened and closed by auxiliary valves 30 and 31 arranged on the valve casing 21, respectively. One of the auxiliary valves 31 has flow-adjustability. The main valve 18 is fixed to a housing 14 of a heat treatment system via a fixing plate 54 provided on the main valve 18 by using a bolt and a nut. The pipe arrangement of the exhaust system 12 can be simplified, and maintenance of the heat treatment system can readily be performed.