

ABSTRACT OF THE DISCLOSURE

A fluid temperature control device is improved to be simpler in structure, less in fluid temperature non-uniformity, and able to heat a fluid having a small light absorbability. The fluid temperature control device has a cylindrical inner vessel (20), a cylindrical outer vessel (22) surrounding the inner vessel (20), and a heating lamp (25) inserted into the inner vessel (20). Metal fins (28a) and (28b) are provided on the inner and outer circumferential surfaces of the inner vessel (20). A working fluid is passed through the inner space (21) between the inner vessel (20) and the heating lamp (25), and a cooling liquid is passed through the outer space (23) between the inner vessel (20) and the outer vessel (22). Infrared rays from the heating lamp (25) heat the working fluid, and the cooling liquid cools the working fluid. This device is applicable to, for instance, temperature control of plural process chambers of semiconductor processing apparatus. A plurality of the temperature control devices are arranged in the vicinity of the semiconductor processing apparatus. Each of the devices is assigned to each of plural portions of the process chambers and provides the temperature-controlled fluid exclusively to each portion.

Fig. 8