

ABSTRACT

A processing table 3 holding a workpiece 2 is accommodated in a chamber 4 with a gas-tight condition kept, and a liquid column W is jetted to an upper surface of this chamber 4, and a processing head 9 that guides laser beam L to the liquid column W is secured to the upper surface of this chamber 4.

Gas exhaust means 5 in which an oil-sealed rotary pump 11 and a diffusion pump 12 are provided in parallel is connected to the chamber 4, and the diffusion pump 12 is actuated after the actuation of the oil-sealed rotary pump 11, bringing the inside of the chamber 4 into a vacuum state.

Bringing the inside of the chamber 4 into a vacuum state, no gas current is generated around the liquid column W jetted from the processing head 9, making it possible to prevent turbulence of the liquid column W due to turbulence of the gas current.

A liquid column having a small diameter can be jetted in a stable state.