

ABSTRACT

LASER MACHINING APPARATUS

A laser machining apparatus is provided. The laser machining apparatus including a holding unit adapted to hold a workpiece, a laser irradiation unit adapted to irradiate a laser beam, a machining feed unit adapted to relatively move the holding unit and the laser irradiation unit in a machining feed direction, an indexing feed unit adapted to relatively move the holding unit and the laser irradiation unit in an indexing feed direction, and a control unit adapted to control the operation of each component, in which letting the amount of time required for a stopping step that stops the laser irradiation unit relative to the holding unit be denoted by ' t_a ' and that required for an indexing step that sets the irradiation position of the laser beam at a scheduled division line to be machined next be denoted by ' t_b ,' and when $t_b > t_a$, the control unit initiates the stopping and indexing steps simultaneously after a machining step and takes advantage of remaining time ($t_b - t_a$) of the indexing step following the end of the stopping step to perform a starting step that accelerates the laser irradiation unit relative to the holding unit.

(Figure 1)