

ABSTRACT

The present invention relates to a laser-jet liquid beam self-generated abrasive particle flow composite processing device and a method. The laser-jet liquid beam self-generated abrasive particle flow composite processing device comprises a spraying nozzle and a work box, wherein the spraying nozzle is connected with a supplying mechanism configured to supply a salt saturated solution at a set pressure to the spraying nozzle; the spraying nozzle is connected with a cooling mechanism configured to cool the salt saturated solution inside the spraying nozzle and precipitate fine crystal grains from the salt saturated solution; the spraying nozzle is further connected with a mirror tube; the mirror tube is connected with a laser generating mechanism configured to generate laser rays; and the work box is configured to fix a workpiece and collect the salt saturated solution sprayed by the spraying nozzle. The processing device of the present invention can effectively improve processing quality of the workpiece.

Fig. 1