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(54) Title: METHOD FOR CONTROLLING A LASER CUTTING PROCESS AND LASER CUTTING SYSTEM IMPLEMENTING THE SAME

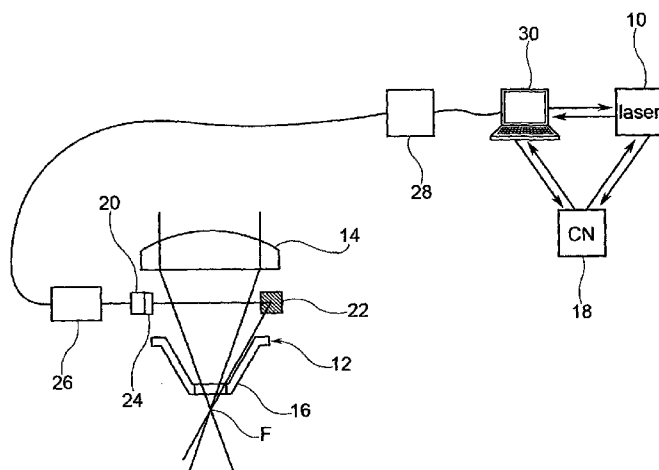


FIG. 4

(S7) Abstract: According to the invention, a laser cutting process is controlled using as reference signal one or more emission lines which are characteristic of the radiation emitted by a gas (be it an assisting gas or a contaminant gas) or, more generally, by an emitting element present in the volume irradiated by the laser beam focussed by a laser head (12) and adjusting, on the base of this reference signal, at least one of the following process control parameters: the power of the laser, the frequency and the duty cycle of the laser pulse, the pressure of an assisting gas emitted by a nozzle (16) forming part of the laser head (12), the relative speed of the laser head (12) with respect to the workpiece (P), the distance between the laser head (12) and the surface (S) of the workpiece (P), and the distance between the focal point (F) of the laser beam and the surface (S) of the workpiece (P).

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