

ABSTRACT

SYSTEM AND PROCESS OF ADDITIVE-MANUFACTURING BY LASER
MELTING OF A POWDER BED

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The present invention concerns a system (1) of additive-manufacturing by laser melting of a powder bed (2), characterized in that the system (1) comprises: a first laser unit (10) selectively emitting a first laser beam to form at least one layer of material by melting the powder bed (2); a second laser unit (20) selectively emitting a second laser beam to machine at least a portion of said layer of material; and an optical unit (30) enabling to focus the first laser beam on the powder bed (2) to be melted and the second laser beam (F2, F20) on the layer of material to be machined. The system (1) is able to produce a part by successive stacking of melted then machined layers of material. The invention also concerns a process of additive-manufacturing by laser melting of a powder bed (2).

(FIG. 2)