

Title (en)
DEVICE AND METHOD FOR PROCESSING A WORKPIECE

Title (de)
VORRICHTUNG UND VERFAHREN ZUM BEARBEITEN EINES WERKSTÜCKS

Title (fr)
DISPOSITIF ET PROCÉDÉ D'USINAGE D'UNE PIÈCE

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Application
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Abstract (en)
[origin: WO2023020916A1] The present invention relates to a method and a device (1) for processing a workpiece (10) using a laser beam (30) of a laser (3), comprising a laser (3) configured to emit a laser beam (30), a polarization switch (4) configured to switch the polarization of the laser beam (30) between two polarization states and/or rotate the polarization of the laser beam (30), a polarization splitter (5) configured to split the laser beam (30) into two partial laser beams (300), with the two partial laser beams (300) having mutually orthogonal polarizations and with the first partial laser beam (301) with the first polarization having a first offset following the passage through the polarization splitter and the second partial laser beam (302) with a second polarization having a second offset following the passage through the polarization splitter, and a processing optical unit (8) configured to introduce the first partial laser beam (301) into the workpiece (10) into a first focal zone (801) and introduce the second partial laser beam (302) into the workpiece (10) into a second focal zone (802) in order to process the workpiece (10), with the polarization switch (4) being arranged upstream of the polarization splitter (5) in the beam propagation direction and with the switching and/or rotating of the polarization by the polarization switch (4) alternately maximizing the intensities of the two partial laser beams (300).

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