Title (en)

CNC machine for cutting with plasma, oxy-fuel, and water jet, capable of direct or additional bevel cutting, using autocalibration for self-adjustment, and the method of its adjustment by autocalibration

Title (de)

CNC-Maschine zum Schneiden mit Plasma, Sauerstoff-Brennstoff und Wasserstrahl mit der Fähigkeit zum direkten oder zusätzlichen Kantenschneiden mittels Selbstkalibrierung für Selbsteinstellung sowie Verfahren zu ihrer Einstellung mittels Selbstkalibrierung

Title (fr)

Machine CNC de découpe par plasma, oxy-carburant et jet d'eau, permettant une découpe directe ou en biseau supplémentaire, utilisant l'auto-étalonnage pour un auto-réglage et son procédé de réglage par auto-étalonnage

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Application

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Abstract (en)

[origin: EP2821869A1] The presented invention relates to the CNC machine for cutting with plasma, oxy-fuel, and water jet used as a cutting tool, being capable of direct and additional bevel cutting of pre-cut workpieces, using autocalibration for self-adjustment, consisting of lateral sides (1) of the machine, provided with X motion axes; a gantry (2) provided with drives (5), Y motion axes for motion of a support (3), and the support (3) provided with a drive (6), Z motion axes for motion of cutting heads (15), and the cutting head (15) being able to move rotary along A, B motion axes by drives (8, 9) and carrying a cutting tool (10); a cutting tool position calibration station (11); a control system (16) with interpolator; a working table (12); wherein the support (3) is provided with the workpiece position calibration station (4) connected with a laser line scanner (14) provided with the drive (13) for its rotary motion along the C motion axis, the cutting tool position calibration station (11) is located in the intersection of working areas of the cutting head (15) and the workpiece position calibration station (4), and the output of the cutting tool position calibration station (11) and output of the workpiece position calibration station (4) are connected to the inputs of the control system with interpolator (16) coupled through its input with the drives (5), (6), (7), (13) of X, Y, Z, C motion axes of the machine. This invention also relates to self-adjustment of the CNC machine by autocalibration.

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Cited by

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