

Title (en)
CLAMPING ELEMENT, CLAMPING BODY AND CLAMPING DEVICE AND METHOD FOR CLAMPING A WORKPIECE OR TOOL

Title (de)
SPANNELEMENT, SPANNKÖRPER UND SPANNVORRICHTUNG UND VERFAHREN ZUM SPANNEN EINES WERKSTÜCKES ODER WERKZEUGES

Title (fr)
ÉLÉMENT DE SERRAGE, CORPS DE SERRAGE ET DISPOSITIF DE SERRAGE ET PROCÉDÉ POUR SERRER UNE PIÈCE OU UN OUTIL

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Abstract (en)
[origin: WO2021204880A2] The invention relates to a clamping element (1) and to a clamping body (104, 204) for a clamping device (100, 200) for clamping a workpiece (101) or a tool, to such a clamping device (100, 200), and to a method for clamping a workpiece or tool. The clamping element (1) is oriented about at least one central axis (M) and has at least one clamping face (3) for the workpiece (101) or tool and at least one supporting face (2), facing away from the clamping face (3), for supporting on a supporting face (106) of a clamping body (104) of the clamping device (100). The clamping face (3) of the clamping element (1) is formed by two or more clamping-face segments (4) that are spaced apart from one another in the circumferential direction (U) about the central axis (M), the supporting face (2) of the clamping element (1) is formed by two or more supporting-face segments (5) that are spaced apart from one another in the circumferential direction (U) about the central axis (M), wherein the clamping-face segments (4) and the supporting-face segments (5) are spaced apart from one another in a radial direction (R). Each clamping-face segment (4) is connected via two connecting elements (6, 7) to two supporting-face segments (5) that are adjacent in the circumferential direction (U), and at least one clamping-face segment (4) and at least one supporting-face segment (5) connected to the clamping-face segment (4) via a connecting element (6, 7) are arranged in a manner offset with respect to one another in the circumferential direction (U) by an offset angle (β), with the result that an acting direction of a radial supporting-face pressing force (FA) acting on the supporting-face segment (5) of the clamping element (1) in a radial direction (R) and an acting direction of a clamping-face pressing force (FS) acting on the clamping-face segment (4) of the clamping element (1) both in a radial direction (R) and in the circumferential direction (U) are offset in the circumferential direction (U) by a pressing-force angle (γ) and/or an acting direction of the clamping-face pressing force (FS) acting both in a radial direction (R) and in the circumferential direction (U) and an acting direction of a clamping force (FR) acting on the clamping-face segment (4) of the clamping element (1) are offset in the circumferential direction by a clamping-force angle (δ).

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