

Title (en)

METHOD FOR PRODUCING A POLYMER-IMPROVED PIPE ELEMENT

Title (de)

VERFAHREN ZUM HERSTELLEN EINES POLYMERVEREDELTN ROHRELEMENTS

Title (fr)

PROCÉDÉ DE PRODUCTION D'UN ÉLÉMENT TUBULAIRE AMÉLIORÉ AU POLYMÈRE

Publication

**EP 4267336 A1 20231101 (DE)**

Application

**EP 21844016 A 20211223**

Priority

- EP 20216864 A 20201223
- EP 2021087499 W 20211223

Abstract (en)

[origin: WO2022136644A1] The invention relates to a method for the automated or partially automated production of a polymer-improved pipe element (100) using pipe sections (101, 102) having tolerances, the method comprising the following steps: Providing a first pipe section (101) and a second pipe section (102), the pipe sections each having a connection region which is provided for connection to the respective other pipe section; detecting a spatial shape of the first pipe section and a spatial shape of the second pipe section, in each case in the connection regions; determining a spatial penetration curve as a function of overlaying the spatial shapes; determining a cut contour in the connection region of the first pipe section and a cut contour in the connection region of the second pipe section, in each case as a function of the penetration curve; generating edge surfaces (115, 117) in the connection regions of the first and the second pipe section along the respective cut contours; aligning the generated edge surfaces of the pipe section to one another; and welding the first and the second pipe section along the edge surfaces aligned to one another along the determined spatial penetration curve. The invention also relates to a device for the automated or partially automated production of a polymer-improved pipe element.

IPC 8 full level

**B23K 9/00** (2006.01)

CPC (source: EP US)

**B23K 9/0026** (2013.01 - EP); **B23K 9/032** (2013.01 - EP); **B23K 9/235** (2013.01 - EP); **B23K 31/02** (2013.01 - EP); **B23K 33/006** (2013.01 - EP); **B23K 37/0452** (2013.01 - EP); **B23K 37/0538** (2013.01 - EP); **F16L 41/082** (2013.01 - US); **F16L 58/1009** (2013.01 - US); **B23K 2101/06** (2018.07 - EP); **B23K 2101/10** (2018.07 - EP)

Citation (search report)

See references of WO 2022136644A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**WO 2022136644 A1 20220630**; EP 4267336 A1 20231101; US 2024102598 A1 20240328

DOCDB simple family (application)

**EP 2021087499 W 20211223**; EP 21844016 A 20211223; US 202118257821 A 20211223