

Title (en)

METHOD AND APPARATUS FOR AXIALLY SHAPING A TUBE

Title (de)

VERFAHREN UND VORRICHTUNG ZUM AXIALEN UMFORMEN EINES ROHRES

Title (fr)

PROCÉDÉ ET DISPOSITIF DE DÉFORMATION AXIALE D'UN TUBE

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Application

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Abstract (en)

[origin: WO2020165082A1] The invention relates to a method and an apparatus for axially shaping a tube (200) with the aid of a mandrel (110), which is guided in the tube (200), and an annular die (120), which is guided on the outside of the tube (200). For shaping the tube (200), it is known to clamp it in a clamping device (140). It is also known to reduce the outside diameter of the tube (200) over a free portion of the tube (200) by moving the annular die in a pushing direction S. In order in the case of the tube (200) shaped in this way to allow not only axial stretching but also the formation of undercuts (220, 240) on the outside and inside the tube (200), the method according to the invention also provides the following steps: Reversing the direction of movement of the die (120) and of the mandrel (110) from the pushing direction into an opposite pulling direction Z when an end position is reached. In a first setting step, the die (120) and the mandrel (110) are then moved in relation to one another to a first predetermined annular-gap setting and, in a subsequent first shaping step, the die (120) and the mandrel (110) are moved in the pulling direction Z, while the preset annular gap is maintained, for the purpose of shaping the tube (200).

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