

Title (en)

BENDING DEVICE FOR THIN-WALLED METAL PIPES

Title (de)

BIEGEVORRICHTUNG FÜR DÜNNWANDIGE METALLROHRE

Title (fr)

DISPOSITIF DE CINTRAGE DE TUBES METALLIQUES A PAROIS MINCES

Publication

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Application

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Abstract (en)

[origin: WO0183130A1] The invention relates to a bending device for thin-walled metal pipes (R), comprising a straight pipe guiding device (1), and a contiguous core template (2) that can be swiveled with respect to the pipe guiding device (1) and that comprises a clamp bar (3). The bending device is further provided with a mandrel with a mandrel tip (4) that is flexible in the zone of the core template (2), and a mandrel shank (5) contiguous to and firmly linked with said mandrel tip (4), said mandrel shank being axially fixed in the pipe guiding device (1). The aim of the invention is to provide a bending device that allows to completely support the inside of the metal pipe (R) to be bent in the respective area of bending during the bending process. To this end, the flexible mandrel tip (4) that consists of a radially incompressible solid elastomer cylinder extends only across the initial section of the bending arc where the process of bending takes place. In order to pull the metal pipe (R) to be bent over said mandrel tip (4), it is clamped over a short length by means of a spherical grip holder (7) that can be inserted in the metal pipe (R) in the zone of the core template (2). Said grip holder (7) is free to move in the swivel zone of the core template (2) with respect to the mandrel tip (4) and is connected to a tensioning device (6) that is configured as a return element.

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