

Title (en)
DEVICE FOR BENDING PROFILES

Title (de)
VORRICHTUNG ZUM BIEGEN VON PROFILEN

Title (fr)
DISPOSITIF POUR PLIER DES PROFILES

Publication
EP 1461169 A1 20040929 (DE)

Application
EP 02750952 A 20020518

Priority
• DE 10124801 A 20010521
• EP 0205523 W 20020518

Abstract (en)
[origin: WO02094470A1] The invention relates to a device and a method for bending a tube (32), wherein said tube (32) is guided through a bending tool (31), which rotates about a hollow profile guide housing (41, 42) and an eccentric unit, which is formed by two tubes (43, 44). Rollers (46) are used as pressure elements and a mandrel (33) as a counter bearing. The tube pushed through the hollow profile guide housing (41, 42) is squeezed between the rollers (46) and the mandrel (33) with varying force in various wall cross sectional areas so that bending occurs as a result of elongation and compression of the tube (32). Additionally, the tube (32) can be rotated during bending so that the direction of bending of the tube (32) that is to be bent can be influenced. One indication of the size of a bending radius on a tube (32) to be bent is the eccentricity regulated by means of the eccentric unit and/or axial adjustment of the rollers (46) relative to the hollow profile guide housing (41, 42). The bending tool (31) according to the invention makes it possible to configure different bending radii on a tube (32) that is to be bent using one and the same bending device. Uncontrolled cracks or deformation do not occur. The space required for bending a tube (32) that is to be bent is minimally limited by the bending tool (31) used so that as many forms as needed can be produced on a hollow profile that is to be bent.

IPC 1-7
B21D 11/08; **B21D 9/05**

IPC 8 full level
B21D 9/05 (2006.01); **B21D 9/10** (2006.01); **B21D 11/08** (2006.01)

CPC (source: EP US)
B21D 9/05 (2013.01 - EP US); **B21D 9/10** (2013.01 - EP US); **B21D 11/08** (2013.01 - EP US)

Citation (search report)
See references of WO 02094469A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
WO 02094470 A1 20021128; AT E421393 T1 20090215; DE 50213246 D1 20090312; EP 1461169 A1 20040929; EP 1461169 B1 20090121; EP 1461169 B9 20090812; US 2004244453 A1 20041209; US 7159432 B2 20070109; WO 02094469 A1 20021128

DOCDB simple family (application)
EP 0205524 W 20020518; AT 02750952 T 20020518; DE 50213246 T 20020518; EP 0205523 W 20020518; EP 02750952 A 20020518; US 47855704 A 20040621