

Title (en)  
VARIABLE-THICKNESS EXTRUSION METHOD AND EXTRUSION UNIT IN ACCORDANCE WITH SAID METHOD

Title (de)  
VERFAHREN UND VORRICHTUNG ZUM FLIESSPRESSEN VON PRODUKTEN MIT VARIABLEM QUERSCHNITT

Title (fr)  
PROCEDE D'EXTRUSION A EPAISSEUR VARIABLE ET UNITE D'EXTRUSION ASSOCIEE

Publication  
**EP 0889763 B1 20020313 (EN)**

Application  
**EP 97915464 A 19970326**

Priority  
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• IT MI960624 A 19960329

Abstract (en)  
[origin: WO9736701A1] A cold impact extrusion method for hollow metal elements, in particular cartridge cases, comprises the steps of placing a slug or blank in a die, pressing the blank within the die between a punch and counter-punch facing each other, during compression moving the punch forward in the die at a first velocity and moving the counter-punch backward at a second velocity slower than the first one, so as to reduce the distance between the punch and counter-punch. During movement, the punch head is caused to pass through die areas having different distances from the punch sides so as to identify an extrusion annulus of variable width between the die and punch. An extrusion unit for applying the method comprises a punch (11, 111, 211) and a counter-punch (12, 112, 212) facing each other and coaxially movable within a die (13, 113, 213) to identify an extrusion chamber (14, 114, 214) therebetween, which has a variable transverse size along the punch and counter-punch movement axis.

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