

Title (en)

Method and apparatus for the hot-forming of tubular box-type elements of any shape made from a light alloy

Title (de)

Verfahren und Vorrichtung zur Warmumformung von kastenförmigen Hohlprofilen irgendeiner Form aus Leichtmetall

Title (fr)

Procédé et dispositif pour le formage à chaud d'éléments tubulaires en forme de caisson de forme quelconque en alliage léger

Publication

**EP 0815985 A1 19980107 (EN)**

Application

**EP 97109605 A 19970612**

Priority

IT TO960536 A 19960621

Abstract (en)

Tubular boxes (2) of any shape are made from a light alloy (based on aluminium and/or magnesium for example) by means of a hot-forming method, preferably starting from billets (11) cast in that alloy, which provides a first phase in which the alloy is hot-extruded through a die (14) of suitable shape so as to be formed into a tube (4) of pre-determined section, preferably circular, generally rectilinear, a second phase in which the extruded tube (4), still hot, is fed between two moulds (6,7) which are heated and provided with conjugated cavities capable of defining with their contour the final shape of the box (2), and a third phase in which the extrusion (4) is pressed inside the moulds (6,7) which are brought close together in a fluid-tight manner, by creating a vacuum between extrusion (4) and cavity (8,9), inside the cavities (8,9), and conveying a pressurized gas inside the extrusion (4); during the second phase the moulds (6,7) are kept close together at a certain distance apart from each other so that the cavities define a guide channel for the extrusion (4) inside which it is caused to slide to obtain a pre-form of it; all the phases take place with the alloy kept at the temperature of maximum plasticity. <IMAGE>

IPC 1-7

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Citation (search report)

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