

Title (en)
TOOLS AND A MACHINE FOR MANUFACTURING OF PACKAGES FROM SHEET METAL

Title (de)
WERKZEUGE UND MASCHINE ZUR HERSTELLUNG VON VERPACKUNGEN AUS BLECH

Title (fr)
OUTILS ET MACHINE DE FABRICATION D'EMBALLAGES À PARTIR DE TÔLE MÉTALLIQUE

Publication
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Application
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Abstract (en)
A tool for preforming cups for manufacturing of packages from sheet metal, composed of a preforming die (1), a blankholder (2) and a sheet preforming punch (3), where the differences of: preforming die's outer diameter Dm1 and inner diameter dm1, preforming blankholder outer diameter Ddl and inner diameter ddl are not less than 20% of the diameter Ddl or/and Dm1, wherein the blankholder (2) surface and the die (1) surface, in the place where the die and the blankholder are touching each other, are shaped the way to hold still the material during the operation of preforming. The object of the present invention is also a tool for drawing cups, machine with installed tools, and a technological line composed of such machines.

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CPC (source: EP)
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Citation (applicant)
EP 16000613 A 20160315

Citation (search report)
• [X] US 3664172 A 19720523 - CVACHO DANIEL S
• [X] US 3789649 A 19740205 - CLOWES E
• [X] DE 666565 C 19381022 - AUGUSTE ALBERTINI
• [A] DE 19504264 A1 19960814 - DAIMLER BENZ AG [DE]

Cited by
FR3125797A1; WO2023007098A1

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