

## Title (en)

DEEP DRAW PACKAGING MACHINE WITH FILM STAMP

## Title (de)

TIEFZIEHVERPACKUNGSMASCHINE MIT FOLIENSTANZE

## Title (fr)

MACHINE D'EMBALLAGE PAR EMBOUTISSAGE EQUIPEE D'UNE PRESSE DE DECOUPAGE DE FEUILLE

## Publication

**EP 3109017 B1 20171129 (DE)**

## Application

**EP 16172562 A 20160602**

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DE 102015211622 A 20150623

## Abstract (en)

[origin: US2016376048A1] The present invention relates to a thermoform packaging machine, comprising a controller and a film punch, which includes a lever mechanism, a tool, upper part and a tool lower part. At least one of the tool upper part and the tool lower part are movable by means of the lever mechanism such that the tool upper part and the tool lower part approach each other.

## IPC 8 full level

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## Citation (opposition)

Opponent : GEA Food Solutions Germany GmbH,

- EP 2860119 A1 20150415 - MULTIVAC SEPP HAGGENMÜLLER GMBH & CO KG [DE]
- DE 19841415 A1 20000323 - HAFF & SCHNEIDER GMBH & CO OHG [DE]
- DE 102007024710 A1 20081127 - ZAHORANSKY AG [DE]
- DE 102009056169 A1 20110601 - HEIDELBERGER DRUCKMASCH AG [DE]
- DE 102014210963 A1 20151217 - OPTIMA CONSUMER GMBH [DE]
- DE 3604255 A1 19870813 - ILLIG MASCHINENBAU ADOLF [DE]
- DE 3436469 C1 19850919 - ILLIG MASCHINENBAU ADOLF
- DE 8429209 U1 19860612
- DE 102010019576 A1 20111110 - CFS GERMANY GMBH [DE]
- DE 10351567 A1 20050602 - CFS GERMANY GMBH [DE]
- DE 10327092 A1 20041230 - CFS GERMANY GMBH [DE]
- WO 2008046471 A1 20080424 - CFS GERMANY GMBH [DE], et al
- EP 1988024 B2 20170524 - GEA FOOD SOLUTIONS GERMANY GMBH [DE]
- EP 2746167 A1 20140625 - MULTIVAC SEPP HAGGENMÜLLER GMBH & CO KG [DE]
- "Servoantrieben", WIKIPEDIA, 20 January 2018 (2018-01-20), pages 1 - 6, XP055516108, Retrieved from the Internet <URL:https://de.wikipedia.org/w/index.php?title=Servoantrieb&oldid=173132687>

Opponent : Weber Maschinebau GmbH Breidenbach

- DE 19841415 A1 20000323 - HAFF & SCHNEIDER GMBH & CO OHG [DE]
- EP 2860119 A1 20150415 - MULTIVAC SEPP HAGGENMÜLLER GMBH & CO KG [DE]
- DE 102007024710 A1 20081127 - ZAHORANSKY AG [DE]
- DE 102009056169 A1 20110601 - HEIDELBERGER DRUCKMASCH AG [DE]
- DE 10351567 A1 20050602 - CFS GERMANY GMBH [DE]
- DE 8813774 U1 19900301
- DE 4117542 A1 19921203 - HAENSEL OTTO GMBH [DE]
- EP 2586591 B1 20150311 - GABLER THERMOFORM GMBH & CO KG [DE]
- EP 2586590 A1 20130501 - GABLER THERMOFORM GMBH & CO KG [DE]
- DE 102012023665 A1 20140605 - BRANKAMP GMBH [DE], et al
- DE 102004008597 A1 20050915 - HASSIA VERPACKUNG AG [DE]
- DE 19536728 A1 19960411 - MURATA MACHINERY LTD [JP]
- EP 0741001 A2 19961106 - GIETZ AG [CH]
- DE 69105804 T2 19950622 - BOBST SA [CH]
- EP 1537988 B1 20090211 - AIDA ENG LTD [JP]
- EP 1612037 A2 20060104 - FANUC LTD [JP]
- US 2003066323 A1 20030410 - TERAOKA KENICHI [JP]
- DE 102011052860 A1 20120301 - SCHULER PRESSEN GMBH [DE]
- WO 2007144210 A1 20071221 - SIEMENS AG [DE], et al
- EP 1118540 B1 20051228 - CFS GERMANY GMBH [DE]

## Cited by

EP3900898A1; EP3978378A1; CN106586141A; EP4344840A1; DE102020204997A1; DE102020125688A1; US11542052B2; US12030208B2

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## DOCDB simple family (publication)

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## DOCDB simple family (application)

