

Title (en)

Article transfer device and packaging system provided with same

Title (de)

Artikeltransportvorrichtung und Verpackungssystem damit

Title (fr)

Dispositif de transfert d'articles et système d'emballage fourni avec celui-ci

Publication

EP 2489596 A2 20120822 (EN)

Application

EP 12155833 A 20120216

Priority

JP 2011030773 A 20110216

Abstract (en)

An article transfer device is provided with a funnel-shaped structure and a high pressure air supply pipe. The funnel-shaped structure is provided with an upper end opening adapted to receive the articles being dropped in from above and a lower end opening adapted to allow the articles to drop through to the form-fill-seal machine. An inner space is defined within the funnel-shaped structure between the openings. The upper part of the inner space has a greater cross-sectional area than the cross-sectional area of the lower part of the inner space. A plurality of air ejection holes are formed in an inner peripheral surface of the funnel-shaped structure surrounding the inner space. The plurality of air ejection holes are arranged with respect to one another defining a helical shape pattern about the funnel-shaped structure. Gaseous material is spouted out from the high pressure air supply pipe and into the inner space through the plurality of air ejection holes.

IPC 8 full level

B65B 1/16 (2006.01); **B65B 1/32** (2006.01); **B65B 9/20** (2012.01); **B65B 51/30** (2006.01)

CPC (source: EP US)

B65B 1/16 (2013.01 - EP US); **B65B 1/32** (2013.01 - EP US); **B65B 9/2028** (2013.01 - EP US); **B65B 9/207** (2013.01 - EP US); **B65B 51/306** (2013.01 - EP US)

Citation (applicant)

- JP S61190410 A 19860825 - ILAPAK RES & DEV SA
- US 5881539 A 19990316 - FUKUDA MASAO [JP], et al

Cited by

CN115872002A; CN103991587A; US12006080B2; WO2021123487A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2489596 A2 20120822; **EP 2489596 A3 20130417**; **EP 2489596 B1 20140402**; AU 2012100175 A4 20120315; CN 202557819 U 20121128; JP 2012166836 A 20120906; JP 5666936 B2 20150212; US 2012204522 A1 20120816

DOCDB simple family (application)

EP 12155833 A 20120216; AU 2012100175 A 20120216; CN 201220049079 U 20120215; JP 2011030773 A 20110216; US 201213398040 A 20120216