

Title (en)

Device and method for placing, holding and/or handling flat objects

Title (de)

Vorrichtung und Verfahren zur Aufnahme, zum Halten und/oder zur Handhabung von flächigen Gegenständen

Title (fr)

Dispositif et procédé de réception, de retenue et/ou de manipulation d'objets plats

Publication

**EP 2476637 A3 20140122 (DE)**

Application

**EP 11192889 A 20111209**

Priority

- DE 102011008848 A 20110118
- DE 102011084830 A 20111019

Abstract (en)

[origin: EP2476637A2] The device (10) has two controllable suction grippers (14) arranged and connected to free ends (16) of movable cantilever arms (18). The arms are elastically deformable and articulately movable in partial areas. The arms are mounted on a bridge (20) or movably supported on the bridge and/or fixed to the bridge. Each arm comprises a lower pull (22) and an upper pull (24) connected at the free ends. A puller (26) is attached to the upper pull for generating pulling force with a horizontal direction component approximately parallel to a longitudinal extension direction of the cantilever arm. An independent claim is also included for a method for receiving, holding and/or handling two-dimensional objects.

IPC 8 full level

**B65H 3/08** (2006.01); **B65H 3/54** (2006.01)

CPC (source: EP US)

**B65H 3/0816** (2013.01 - EP US); **B65H 3/0883** (2013.01 - EP US); **B65H 3/54** (2013.01 - EP US); **B65H 2301/51214** (2013.01 - EP US); **B65H 2405/353** (2013.01 - EP US); **B65H 2406/34** (2013.01 - EP US); **B65H 2406/343** (2013.01 - EP US)

Citation (search report)

- [XAI] US 5433426 A 19950718 - BOND IRVIN D [US]
- [A] EP 1382559 A1 20040121 - VILLEROY & BOCH [DE]
- [A] US 5083763 A 19920128 - HARTTA MATTI [FI]

Cited by

EP3037371A1; DE102014225981A1; DE102015103147A1; DE102017118255A1; CN114735501A; CN118306820A; EP3441332A1; WO2016139063A3; WO2020056438A2; US11919152B2

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 2476637 A2 20120718; EP 2476637 A3 20140122; EP 2476637 B1 20150506**; AU 2011265490 A1 20120802; AU 2011265490 B2 20160519; BR 102012001259 A2 20140107; BR 102012001259 B1 20191217; CN 102602714 A 20120725; CN 102602714 B 20141105; DE 102012200535 A1 20120719; SI 2476637 T1 20150930; US 2012181740 A1 20120719; US 8690149 B2 20140408

DOCDB simple family (application)

**EP 11192889 A 20111209**; AU 2011265490 A 20111222; BR 102012001259 A 20120118; CN 201210016328 A 20120118; DE 102012200535 A 20120116; SI 201130550 T 20111209; US 201213346264 A 20120109