

Title (en)  
Device for taking out flat objects

Title (de)  
Vorrichtung zum Entnehmen flacher Gegenstände

Title (fr)  
Dispositif pour prélever des objets plats

Publication  
**EP 1223131 A3 20040102 (DE)**

Application  
**EP 01127891 A 20011123**

Priority  
DE 10100968 A 20010111

Abstract (en)  
[origin: US2002091052A1] A device for removing flat articles, in particular blanks of collapsed boxes from a delivery station and for transferring them to a receiving station which has a transport device thereat. Plural suction arms each with suction devices thereon are provided, which suction arms move through a self-contained cycloidal path. The cycloidal path has several tips and curved segments lying therebetween. The delivery station and the receiving station are each arranged at a tip of the cycloidal path. A rotor is provided for moving the suction arms. A sun and planet gear arrangement is provided on the rotor, which sun and planet gear delineate the cycloidal path. The suction arms are aligned parallel to one another and preferably to the transport direction of the transport device in order to achieve in this manner a technically simple and reliable device.

IPC 1-7  
**B65H 3/42**; **B65B 43/26**

IPC 8 full level  
**B65B 43/26** (2006.01); **B65H 3/42** (2006.01)

CPC (source: EP US)  
**B65H 3/42** (2013.01 - EP US); **B65H 2301/42322** (2013.01 - EP US)

Citation (search report)

- [X] DE 19801194 A1 19990722 - IWK VERPACKUNGSTECHNIK GMBH [DE]
- [X] EP 0580958 A1 19940202 - UHLMANN PAC SYSTEME GMBH & CO [DE]
- [A] US 5061231 A 19911029 - DIETRICH WALTER [DE], et al
- [A] US 5054761 A 19911008 - DIETRICH WALTER [DE], et al
- [A] US 4518301 A 19850521 - GREENWELL JOSEPH D [US]

Cited by  
CN103501933A; WO2012119915A1

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**EP 1223131 A2 20020717**; **EP 1223131 A3 20040102**; **EP 1223131 B1 20050608**; AT E297352 T1 20050615; DE 10100968 A1 20020718; DE 50106445 D1 20050714; ES 2240311 T3 20051016; US 2002091052 A1 20020711; US 6659928 B2 20031209

DOCDB simple family (application)  
**EP 01127891 A 20011123**; AT 01127891 T 20011123; DE 10100968 A 20010111; DE 50106445 T 20011123; ES 01127891 T 20011123; US 4357102 A 20020110