

Title (en)  
Filling machine

Title (de)  
Füllmaschine

Title (fr)  
Machine de remplissage

Publication  
**EP 1216952 A3 20020821 (DE)**

Application  
**EP 01120679 A 20010903**

Priority  
DE 10064954 A 20001223

Abstract (en)  
[origin: EP1216952A2] The filling element (1) has at least four gas ducts (27, 28, 29, 34). The first gas duct has a first control valve (24) to produce a controlled connection between the return gas opening (18'') and the tension gas duct (3), the second gas duct has a second control valve (25) for connecting the return gas opening and the vacuum duct (4) whilst the third gas duct has a third control valve (26) for controlled connection between the return gas duct and a flushing pipe (19) provided on the filler element and which can lead into the relevant can or container (10). The fourth gas duct contains a first throttle (35) for regulating or reducing the gas flow and provides a constant connection between the return gas opening and the return gas duct (5). The second and third gas ducts also contain throttles (30, 32).

IPC 1-7  
**B67C 3/10**; **B67C 3/12**

IPC 8 full level  
**B67C 3/04** (2006.01); **B67C 3/10** (2006.01); **B67C 3/12** (2006.01); **B67C 3/28** (2006.01)

CPC (source: EP)  
**B67C 3/04** (2013.01); **B67C 3/10** (2013.01); **B67C 3/12** (2013.01); **B67C 3/286** (2013.01)

Citation (search report)  
• [A] EP 0752388 A1 19970108 - KHS MASCH & ANLAGENBAU AG [DE]  
• [A] DE 19939521 A1 20000907 - KHS MASCH & ANLAGENBAU AG [DE]

Cited by  
DE102015111374A1; DE102007040262A1; JP2016508934A; RU2482054C2; CN102482068A; EA016745B1; ITBO20090077A1; CN106365099A; EP1262446A1; EP3184484A1; EP1584601A1; DE102004017205A1; CN102190264A; EP2361696A3; DE102013103639A1; US8726946B2; WO2009123493A1; WO2008101572A1; WO2010140173A1; EP3118154A1; US9695028B2; US10029901B2; US7469726B2; US9181074B2; JP2010519141A; WO2013164080A1; WO2009026993A1; JP2005298066A; EP2871150B1

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 1216952 A2 20020626**; **EP 1216952 A3 20020821**; **EP 1216952 B1 20040407**; AT E263733 T1 20040415; DE 10064954 A1 20020627; DE 50101898 D1 20040513

DOCDB simple family (application)  
**EP 01120679 A 20010903**; AT 01120679 T 20010903; DE 10064954 A 20001223; DE 50101898 T 20010903