

Title (en)

CARTRIDGE HOLDER, MULTI-CHAMBER CARTRIDGES AND METERING AND MIXING DEVICES CONTAINING SAME

Title (de)

KARTUSCHENHALTER, MEHRKAMMERKARTUSCHEN UND DOSIER- UND MISCHVORRICHTUNGEN, WELCHE DIESE UMFASSEN

Title (fr)

SUPPORT DE CARTOUCHES, CARTOUCHES À PLUSIEURS CHAMBRES ET DISPOSITIFS DE DOSAGE ET DE MÉLANGE LES COMPRENANT

Publication

EP 3177391 B1 20180815 (DE)

Application

EP 15732752 A 20150706

Priority

- EP 14179860 A 20140805
- EP 2015065322 W 20150706

Abstract (en)

[origin: WO2016020129A1] The invention relates to metering and mixing devices comprising, i. a cartridge holder (1), having a receptacle (1.1) for multi-chamber cartridges (2), a compressed-air connection (1.2) and a connection (1.3) for an application device, wherein the receptacle (1.1) has an inner tube (1.4) which is arranged coaxially to the walls of the cartridge holder (1) and which is equipped with static mixing elements (1.5), and ii. a multi-chamber cartridge (2) for the cartridge holder (1) according to i., wherein said multi-chamber cartridge comprises an upper portion (2.1), comprising a directional valve (2.1.1); a central portion (2.2) of which the centre is configured as a tubular vacuum (2.2.1) in the direction of the longitudinal axis, and the tubular vacuum (2.2.1) is enclosed by at least two chambers (2.2.2 and 2.2.3), wherein the chambers are tubular and arranged in the direction of the longitudinal axis of the cartridge and adjacent chambers are separated from one another by a common dividing wall (2.2.4) and each chamber is connected to the upper portion (2.1) via at least one respective opening (2.2.5); and comprises a lower portion (2.3) which comprises a piston (2.3.1 and 2.3.2) for each of the chambers, wherein the pistons (2.3.1 and 2.3.2) close off the chambers (2.2.2 and 2.2.3) tightly from below and are connected to one another via cutting devices (2.3.3), and the cutting devices (2.3.3) are arranged such that they are able to sever the common dividing wall (2.2.4) of respectively adjacent chambers when the pistons (2.3.1 and 2.3.2) are displaced in the direction of the upper portion (2.1), wherein the multi-chamber cartridge (2) is arranged in the cartridge holder (1) such that the inner wall of the inner tubes of the multi-chamber cartridge (2) bears tightly on the outer wall of the tube (1.4) of the cartridge holder (1). Furthermore, the invention relates to the above cartridge holder (1) and the above multi-chamber cartridge (2) and also to a multi-chamber cartridge (2) having an integrated static mixing device and to a metering and mixing device comprising the latter. The invention also relates to a method for conveying, metering and mixing a plurality of components and to a method for coating substrates, in each case using the above metering and mixing devices.

IPC 8 full level

B01F 5/06 (2006.01); **B01F 13/00** (2006.01); **B01F 15/00** (2006.01); **B01F 15/02** (2006.01)

CPC (source: EP US)

B01F 25/431 (2022.01 - EP US); **B01F 33/50112** (2022.01 - EP US); **B01F 35/522** (2022.01 - EP US); **B01F 35/7162** (2022.01 - EP US); **B01F 35/7174** (2022.01 - EP US); **B05B 7/0408** (2013.01 - EP US); **B05B 7/241** (2013.01 - EP US); **B05B 7/2437** (2013.01 - EP US); **B05B 7/2472** (2013.01 - EP US); **B05C 17/00559** (2013.01 - EP US); **B01F 2101/30** (2022.01 - EP US); **B05B 7/2478** (2013.01 - EP US); **B05C 17/015** (2013.01 - EP US)

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

DOCDB simple family (publication)

WO 2016020129 A1 20160211; AU 2015299320 A1 20170316; AU 2015299320 B2 20180426; BR 112017002020 A2 20180130; EP 3177391 A1 20170614; EP 3177391 B1 20180815; ES 2696754 T3 20190117; JP 2017530856 A 20171019; JP 6397119 B2 20180926; MX 2017001684 A 20170427; PL 3177391 T3 20190131; US 10464086 B2 20191105; US 2018221898 A1 20180809

DOCDB simple family (application)

EP 2015065322 W 20150706; AU 2015299320 A 20150706; BR 112017002020 A 20150706; EP 15732752 A 20150706; ES 15732752 T 20150706; JP 2017506695 A 20150706; MX 2017001684 A 20150706; PL 15732752 T 20150706; US 201515501384 A 20150706