

Title (en)
ELECTROSTATIC SPRAY NOZZLE SYSTEM

Title (de)
ELEKTROSTATISCHES SPRÜHDÜSENSYSTEM

Title (fr)
SYSTEME DE BUSE DE PULVERISATION ELECTROSTATIQUE

Publication
EP 1817112 A4 20080806 (EN)

Application
EP 05823418 A 20051112

Priority

- US 2005040956 W 20051112
- US 62748004 P 20041112
- US 62719104 P 20041112
- US 27227405 A 20051110
- US 27125705 A 20051110

Abstract (en)
[origin: WO2006053229A2] An electrostatic spray nozzle assembly designed for optimum charge level over a wide range of liquid and air flow rates. The electrostatic spray nozzle assembly includes an adjustment mechanism operable to move a fluid tip assembly within a bore of a nozzle body so as to adjust a longitudinal distance between a liquid outlet of the fluid tip assembly and an outlet of a nozzle cap. The electrostatic spray nozzle assembly is mounted to a panel made of insulating material. The panel is adapted to accumulate an electrostatic charge having a same polarity as that of the coating composition dispensed during a spray operation. Further deposition of spray droplets onto the panel is prevented by electrostatic repulsion forces due to the accumulation of sufficient charge onto the surface of the panel from an initial deposit of a small volume of spray.

IPC 8 full level
B05B 5/00 (2006.01); **B05B 1/28** (2006.01); **B05B 1/30** (2006.01); **B05B 7/04** (2006.01); **B05B 7/06** (2006.01); **B05B 7/10** (2006.01); **B05B 7/12** (2006.01)

CPC (source: EP US)
B05B 5/03 (2013.01 - EP); **B05B 5/043** (2013.01 - EP); **B05B 15/60** (2018.01 - EP US); **B05B 15/62** (2018.01 - EP); **F23D 11/32** (2013.01 - EP US); **A45D 2200/057** (2013.01 - EP); **B05B 7/0475** (2013.01 - EP); **B05B 13/0278** (2013.01 - EP); **B05B 13/0405** (2013.01 - EP); **B05B 15/654** (2018.01 - EP)

Citation (search report)

- [XAY] US 4934602 A 19900619 - MATTSOY ROY D [US]
- [A] EP 1129784 A2 20010905 - RANSBURG IND FINISHING KK [JP]
- [Y] US 5685482 A 19971111 - SICKLES JAMES E [US]
- See references of WO 2006053229A2

Designated contracting state (EPC)
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DOCDB simple family (publication)
WO 2006053229 A2 20060518; WO 2006053229 A3 20061109; WO 2006053229 A8 20061221; WO 2006053229 A9 20070125;
AT E476257 T1 20100815; AU 2005304395 A1 20060518; AU 2005304395 A2 20060518; AU 2005304395 B2 20100422;
CA 2597250 A1 20060518; DE 602005022755 D1 20100916; EP 1817112 A2 20070815; EP 1817112 A4 20080806; EP 1817112 B1 20100804;
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