

Title (en)
ELECTROSTATIC NOZZLES FOR ABRASIVE AND CONDUCTIVE LIQUIDS

Title (de)
ELEKTROSTATISCHE DÜSEN FÜR ABRASIVE UND LEITENDE FLÜSSIGKEITEN

Title (fr)
BUSES ELECTROSTATIQUES POUR LIQUIDES ABRASIFS ET CONDUCTEURS

Publication
EP 0837735 A4 20001122 (EN)

Application
EP 96926121 A 19960725

Priority
• US 50672595 A 19950726
• US 62008896 A 19960321
• US 9612175 W 19960725

Abstract (en)
[origin: WO9704876A1] Air-atomizing induction-charging spray nozzles suited for use with conductive liquids, solutions, suspensions or emulsions. These systems feature a high level of spray charging at low induction-electrode voltage and current. Primary benefits include consistent, reliable operation in harsh agricultural and industrial environments with a wide range of spray formulations, especially those having relatively high concentrations of abrasive and conductive materials. The outer surfaces of the nozzles' body portion (1), near connections to earthed sprayer parts, are maintained floating or at near ground potential. The cover portion (2) surfaces adjacent to the induction electrode (18) are maintained at near the potential of the electrode (18). A highly resistive path between the high and low voltage portions of the nozzle is maintained and the electrode voltage or spray charge level does not decrease significantly as nozzle surfaces become coated with spray or are otherwise contaminated by conductive materials present in the spraying environment.

IPC 1-7
B05B 5/00; **B05B 5/043**; **B05B 5/03**

IPC 8 full level
B05B 5/025 (2006.01); **B05B 5/03** (2006.01); **B05B 5/043** (2006.01); **B05B 5/053** (2006.01); **B05B 5/16** (2006.01)

CPC (source: EP KR)
B05B 5/00 (2013.01 - KR); **B05B 5/03** (2013.01 - EP); **B05B 5/043** (2013.01 - EP); **B05B 5/0533** (2013.01 - EP); **B05B 5/1608** (2013.01 - EP)

Citation (search report)
• [X] US 5409162 A 19950425 - SICKLES JAMES E [US]
• [A] US 5044564 A 19910903 - SICKLES JAMES E [US]
• See references of WO 9704876A1

Cited by
EP4268971A1

Designated contracting state (EPC)
DE DK ES FR GB IT NL

DOCDB simple family (publication)
WO 9704876 A1 19970213; AU 6637196 A 19970226; AU 711608 B2 19991014; CA 2226502 A1 19970213; CA 2226502 C 20090901; DE 69631660 D1 20040401; DE 69631660 T2 20041223; DK 0837735 T3 20040621; EP 0837735 A1 19980429; EP 0837735 A4 20001122; EP 0837735 B1 20040225; ES 2216052 T3 20041016; IL 122702 A0 19980816; JP 3256547 B2 20020212; JP H11501253 A 19990202; KR 100437543 B1 20040825; KR 19990035946 A 19990525

DOCDB simple family (application)
US 9612175 W 19960725; AU 6637196 A 19960725; CA 2226502 A 19960725; DE 69631660 T 19960725; DK 96926121 T 19960725; EP 96926121 A 19960725; ES 96926121 T 19960725; IL 12270296 A 19960725; JP 50771097 A 19960725; KR 19980700607 A 19980126