

Title (en)  
Improved particle spray gun.

Title (de)  
Puderspritzpistole.

Title (fr)  
Pistolet pour la pulvérisation de poudre.

Publication  
**EP 0203694 A2 19861203 (EN)**

Application  
**EP 86302813 A 19860415**

Priority  
• US 72439285 A 19850418  
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Abstract (en)  
An electrostatic particle spray gun (10) having, in one preferred embodiment, a conical deflector (16) of insulative material mounted in the nozzle (14) in the particle path for forming a conical particle spray pattern. A resistive sheet (44) connected to a high voltage electrostatic supply is sandwiched between the forward (40) and rearward (42) ends of the deflector (16), leaving only the perimeter of the sheet (44) exposed at the peripheral region of the conical deflector (16). The perimeter of the resistive sheet (44) functions as a multi-point circular electrode for charging the particles such that improved coating transfer efficiencies are achieved. Also, because of the resistive nature of the resistive sheet (44), the sheet constitutes a resistor in the electrical current path between the center of the sheet where it connects to a high voltage terminal and the circular periphery of the sheet which serves as the multiple point charging electrode, thereby minimizing unsafe electrical discharges should the electrode inadvertently approach a grounded object.

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**B05B 5/00** (2013.01 - KR); **B05B 5/0533** (2013.01 - EP)

Cited by  
US4921172A; EP1475158A1; US4819879A; EP0978319A1; US4811898A; US4788933A; WO2013075703A1; WO2023232199A3; WO8809221A1; WO8902316A1; WO8900460A1

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