

Title (en)
STANDING ULTRASONIC WAVE SPRAYING ARRANGEMENT

Title (de)
ULTRASCHALL-STEHWELLEN-ZERSTÄUBERANORDNUNG

Title (fr)
SYSTEME DE PULVERISATION A ONDES ULTRASONORES STATIONNAIRES

Publication
EP 1633493 B1 20070627 (DE)

Application
EP 04739475 A 20040529

Priority
• EP 2004005864 W 20040529
• DE 10327430 A 20030618

Abstract (en)
[origin: WO2004110649A1] The invention relates to a standing ultrasonic wave spraying arrangement (10, 20) for creating a spray mist of lacquer used for lacquering a workpiece. Said standing ultrasonic wave spraying arrangement comprises a sonotrode (12, 22), a structural part (14, 24) that is located across from the sonotrode (12, 22), a standing ultrasonic field being generated in the intermediate space between the at least one sonotrode (12, 22) and the structural part (14, 24) during operation, and at least one nozzle-shaped lacquer delivering device (18) which is disposed perpendicular to the central axis of the sonotrode (12, 22) and feeds the lacquer into the intermediate space at least at one lacquer discharge point for the spraying process. The structural part located across from the sonotrode (22) is embodied as a coaxially aligned reflector (24). The side (26) of the structural part, which faces the sonotrode (22), is provided with a step-shaped recess (28), the depth of said recess (28) corresponding to a multiple of half the wavelength < of the airborne sound vibrations generated in the sonotrode (22).

IPC 8 full level
B05B 17/06 (2006.01)

CPC (source: EP US)
B05B 17/0623 (2013.01 - EP US)

Cited by
DE102013102918B4; DE102013102918A1

Designated contracting state (EPC)
DE ES FR GB IT

DOCDB simple family (publication)
DE 10327430 A1 20050105; DE 502004004196 D1 20070809; EP 1633493 A1 20060315; EP 1633493 B1 20070627; ES 2288686 T3 20080116; JP 2006527644 A 20061207; US 2007012797 A1 20070118; US 7472850 B2 20090106; WO 2004110649 A1 20041223

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DE 10327430 A 20030618; DE 502004004196 T 20040529; EP 04739475 A 20040529; EP 2004005864 W 20040529; ES 04739475 T 20040529; JP 2006515809 A 20040529; US 56027804 A 20040529