

## Title (en)

Robot with several coating devices

## Title (de)

Applikationsroboter mit mehreren Beschichtungsvorrichtungen

## Title (fr)

Robot équipé de plusieurs appareils de pulvérisation

## Publication

**EP 1733799 A1 20061220 (DE)**

## Application

**EP 06011633 A 20060606**

## Priority

DE 102005027236 A 20050613

## Abstract (en)

The robot has several movable axles and a three dimensionally movable end effector which is fitted with several application devices (11, 12) such as atomisers. The application devices can be mounted side by side at a predetermined spacing and each discharge a spray jet with a predetermined jet width in the same direction. The spray width can be as great as the distance between the application devices to ensure the spray jets overlap for total cover. The spray width can be adjustable and the spray jets can also be fixed so that the spray widths do not overlap. Independent claim describes operating method for multi-axle robot where several applicator devices are guided on the end effector.

## IPC 8 full level

**B05B 13/04** (2006.01)

## CPC (source: EP US)

**B05B 9/0423** (2013.01 - EP US); **B05B 13/0452** (2013.01 - EP US); **B05B 5/0407** (2013.01 - EP US); **B05B 9/0416** (2013.01 - EP US); **B05B 12/14** (2013.01 - EP US); **B05B 12/1472** (2013.01 - EP US); **B05B 13/0415** (2013.01 - EP US); **B05B 13/0431** (2013.01 - EP US)

## Citation (applicant)

- DE 69403485 T2 19980205 - SAMES SA [FR]
- DE 10149424 A1 20020418 - CEFLA COOP [IT]
- DE 8805181 U1 19880616
- DE 2218756 B2 19801211
- EP 0508130 A1 19921014 - TACCON COSTRUZIONI MECCANICHE S [IT]
- WO 2004085082 A1 20041007 - HONDA MOTOR CO LTD [JP], et al
- DE 10297271 T5 20050113 - MITSUBISHI MOTORS CORP [JP]
- GB 2190312 A 19871118 - HONDA MOTOR CO LTD [JP]
- US 6817553 B2 20041116 - STEUR GUNNAR VAN DER [US]
- EP 0529851 A1 19930303 - KOBE STEEL LTD [JP]
- DE 2805072 A1 19781012 - DOOLEY RICHARD ANTHONY
- JP 2000005659 A 20000111 - TOKICO LTD
- WO 0187497 A1 20011122 - GS COATING SYSTEM SRL [IT], et al
- EP 0579417 A1 19940119 - NORDSON CORP [US]
- DE 19852079 A1 20000518 - KOVAROVSKY THOMAS [DE]
- EP 0642840 A1 19950315 - NORDSON CORP [US]
- US 2004159724 A1 20040819 - VAN DER STEUR GUNNAR [US]
- US 4042734 A 19770816 - WIGGINS RICHARD F
- DE 19726349 A1 19990128 - EISENMANN FOERDERTECH [DE]

## Citation (search report)

- [X] EP 0642840 A1 19950315 - NORDSON CORP [US]
- [X] US 2004159724 A1 20040819 - VAN DER STEUR GUNNAR [US]
- [DX] WO 2004085082 A1 20041007 - HONDA MOTOR CO LTD [JP], et al
- [X] US 4042734 A 19770816 - WIGGINS RICHARD F

## Cited by

CN104785415A; EP1837084A3; CN114096356A; CN102667289A; EP3081309A1; CN106040464A; CN105834042A; CN111111981A; CN115090442A; EP3257590A1; CN107521239A; US11400466B2; US11879489B2; WO2008152098A2; US10046361B2; WO2011060889A1; WO2014169993A1; WO2021000978A1; WO2008152098A3; WO2021013449A1; EP2986395B1

## Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

## Designated extension state (EPC)

AL BA HR MK YU

## DOCDB simple family (publication)

**EP 1733799 A1 20061220; EP 1733799 B1 20100217**; AT E457834 T1 20100315; DE 102005027236 A1 20061221; DE 502006006146 D1 20100401; ES 2340787 T3 20100609; US 2007042123 A1 20070222; US 2010330292 A1 20101230; US 7762207 B2 20100727; US 8192800 B2 20120605

## DOCDB simple family (application)

**EP 06011633 A 20060606**; AT 06011633 T 20060606; DE 102005027236 A 20050613; DE 502006006146 T 20060606; ES 06011633 T 20060606; US 45103406 A 20060612; US 82978010 A 20100702