SECTION B — PERFORMING OPERATIONS; TRANSPORTING

B05 SPRAYING OR ATOMISING IN GENERAL; APPLYING FLUENT MATERIALS TO SURFACES, IN GENERAL

B05B **SPRAYING APPARATUS; ATOMISING APPARATUS; NOZZLES** (spray-mixers with nozzles B01F 5/20; processes for applying liquids or other fluent materials to surfaces by spraying B05D) **[2]**

Note(s) [2]

This subclass covers particularly apparatus for the release or projection of drops or droplets into the atmosphere or into a chamber to form a mist or the like. For this purpose, the materials to be projected may be suspended in a stream of gas or vapour.

Subclass index

1/00 **Nozzles, spray heads or other outlets, with or without auxiliary devices such as valves, heating means** (B05B 3/00, B05B 5/00, B05B 7/00 take precedence; devices for applying liquids or other fluent materials to surfaces by contact B05C; nozzles for ink-jet printing mechanisms B41J 2/135; nozzles for liquid-dispensing, e.g. in vehicle service stations, B67D 7/42) **[1, 2006.01]**

1/02 • designed to produce a jet, spray, or other discharge of particular shape or nature, e.g. in single drops (B05B 1/26, B05B 1/28, B05B 1/34 take precedence) **[1, 2006.01]**

1/04 • • in flat form, e.g. fan-like, sheet-like **[1, 2006.01]**

1/06 • • in annular, tubular or hollow conical form **[1, 2006.01]**

1/08 • • of pulsating nature, e.g. delivering liquid in successive separate quantities **[1, 2006.01]**

1/10 • • in the form of a fine jet, e.g. for use in wind-screen washers **[1, 2006.01]**

1/12 • capable of producing different kinds of discharge, e.g. either jet or spray (having selectively-effective outlets B05B 1/16) **[1, 2006.01]**

1/14 • with multiple outlet openings (B05B 1/02, B05B 1/26 take precedence); with strainers in or outside the outlet opening **[1, 2006.01]**

1/16 • • having selectively-effective outlets **[1, 2006.01]**

1/18 • • Roses; Shower heads **[1, 2006.01]**

1/20 • • Perforated pipes or troughs, e.g. spray booms; Outlet elements therefor **[1, 2006.01]**

1/22 • Spouts (anti-splash devices for water-taps E03C 1/08) **[1, 2006.01]**

1/24 • incorporating means for heating the liquid or other fluent material, e.g. electrically **[1, 2006.01]**

1/26 • with means for mechanically breaking-up or deflecting the jet after discharge, e.g. with fixed deflectors; Breaking-up the discharged liquid or other fluent material by impinging jets **[1, 2006.01]**

1/28 • with integral means for shielding the discharged liquid or other fluent material, e.g. to limit area of spray; with integral means for catching drips or collecting surplus liquid or other fluent material **[1, 2006.01]**

1/30 • designed to control volume of flow, e.g. with adjustable passages **[1, 2006.01]**

1/32 • • in which a valve member forms part of the outlet opening **[1, 2006.01]**

1/34 • designed to influence the nature of flow of the liquid or other fluent material, e.g. to produce swirl (designed to control volume of flow B05B 1/30) **[1, 2006.01]**

1/36 • Outlets for discharging by overflow **[1, 2006.01]**

3/00 **Spraying or sprinkling apparatus with moving outlet elements or moving deflecting elements** (B05B 5/00 takes precedence) **[1, 2006.01]**

3/02 • with rotating elements **[1, 2006.01]**

3/04 • • driven by the liquid or other fluent material discharged, e.g. the liquid actuating a motor before passing to the outlet **[1, 2006.01]**

3/06 • • • by jet reaction **[1, 2006.01]**

3/08 • • in association with stationary outlet or deflecting elements **[1, 2006.01]**

3/10 • • discharging over substantially the whole periphery of the rotating member **[1, 2006.01]**

3/12 • • with spray booms or the like rotating around an axis by means independent of the liquid or other fluent material discharged **[1, 2006.01]**

3/14 • with oscillating elements; with intermittent operation **[1, 2006.01]**

3/16 • • driven or controlled by the liquid or other fluent material discharged, e.g. the liquid actuating a motor before passing to the outlet **[1, 2006.01]**

3/18 • with elements moving in a straight line, e.g. along a track; Mobile sprinklers **[1, 2, 2006.01]**

5/00 Electrostatic spraying apparatus; Spraying apparatus with means for charging the spray electrically; Apparatus for spraying liquids or other fluent materials by other electric means [1, 2006.01]

5/025 • Discharge apparatus, e.g. electrostatic spray guns **[5, 2006.01]**

5/03 • • characterised by the use of gas **[5, 2006.01]**

5/035 • • characterised by gasless spraying **[5, 2006.01]**

5/04 • • characterised by having rotary outlet or deflecting elements **[1, 2006.01]**

5/043 • • using induction-charging **[5, 2006.01]**

5/047 • • using tribo-charging **[5, 2006.01]**

5/053 • • Arrangements for supplying power, e.g. charging power **[5, 2006.01]**

5/057 • • Arrangements for discharging liquids or other fluent material without using a gun or nozzle **[5, 2006.01]**

5/06 • using electric arc **[1, 2006.01]**

5/08 • Plant for applying liquids or other fluent materials to objects **[1, 2006.01]**

5/10 • • Arrangements for supplying power, e.g. charging power (in discharge apparatus B05B 5/053) **[5, 2006.01]**

5/12 • • specially adapted for coating the interior of hollow bodies **[5, 2006.01]**

5/14 • • specially adapted for coating continuously moving elongated bodies, e.g. wires, strips, pipes **[5, 2006.01]**

5/16 • Arrangements for supplying liquids or other fluent material **[5, 2006.01]**

7/00 Spraying apparatus for discharge of liquids or other fluent materials from two or more sources, e.g. of liquid and air, of powder and gas (B05B 3/00, B05B 5/00 take precedence) **[1, 2006.01]**

7/02 • Spray pistols; Apparatus for discharge (for spraying particulate material B05B 7/14; with means for heating the material to be sprayed B05B 7/16; with means for supplying fluent material to a discharge device B05B 7/24) **[1, 2006.01]**

7/04 • • with arrangements for mixing liquids or other fluent materials before discharge **[1, 2, 2006.01]**

7/06 • • with one outlet orifice surrounding another approximately in the same plane (B05B 7/10 takes precedence) **[1, 2006.01]**

7/08 • • with separate outlet orifices, e.g. to form parallel jets, to form intersecting jets **[1, 2006.01]**

7/10 • • producing a swirling discharge **[1, 2006.01]**

7/12 • • designed to control volume of flow, e.g. with adjustable passages **[1, 2006.01]**

7/14 • designed for spraying particulate materials (B05B 7/16 takes precedence) **[1, 2006.01]**

7/16 • incorporating means for heating the material to be sprayed **[1, 2006.01]**

7/18 • • the material having originally the shape of a wire, rod, or the like **[1, 2006.01]**

7/20 • • by flame or combustion **[1, 2006.01]**

7/22 • • electrically, e.g. by arc **[1, 2006.01]**

7/24 • with means, e.g. a container, for supplying liquid or other fluent material to a discharge device (B05B 7/14, B05B 7/16, B05B 11/00 take precedence) **[1, 2006.01]**

7/26 • • Apparatus in which liquids or other fluent materials from different sources are brought together before entering the discharge device **[1, 2006.01]**

7/28 • • • in which one liquid or other fluent material is fed or drawn through an orifice into a stream of a carrying fluid **[1, 2006.01]**

7/30 • • • • the first liquid or other fluent material being fed by gravity, or sucked into the carrying fluid **[1, 2006.01]**

7/32 • • • • the fed liquid or other fluent material being under pressure **[1, 2006.01]**

9/00 Spraying apparatus for discharge of liquid or other fluent material without essentially mixing with gas or vapour (B05B 11/00 takes precedence) **[1, 3, 2006.01]**

9/01 • Spray pistols (B05B 9/03 takes precedence) **[3, 2006.01]**

9/03 • characterised by means for supplying liquid or other fluent material **[3, 2006.01]**

9/04 • • with pressurised or compressible container (aerosol containers B65D 83/14); with pump **[1, 3, 2006.01]**

9/043 • • • having pump readily separable from container **[2, 3, 2006.01]**

9/047 • • • supply being effected by follower in container, e.g. membrane or floating piston **[2, 3, 2006.01]**

9/06 • • • the delivery being related to the movement of a vehicle, e.g. the pump being driven by a vehicle wheel **[1, 3, 2006.01]**

9/08 • • • Apparatus to be carried on or by a person, e.g. of knapsack type **[1, 3, 4, 2006.01]**

11/00 Single-unit, i.e. unitary, hand-held apparatus in which flow of liquid or other fluent material is produced by the operator at the moment of use [1, 2, 2006.01]

11/02 • the flow being effected by a follower, e.g. membrane, floating piston, in container for liquid or other fluent material **[2, 2006.01]**

11/04 • the flow being effected by deformation of container for liquid or other fluent material **[2, 2006.01]**

11/06 • the spray being effected by gas or vapour flow, e.g. from a compressible bulb **[2, 3, 2006.01]**

12/00 Arrangements for controlling delivery; Arrangements for controlling the spray area [2, 2006.01, 2018.01]

12/02 • for controlling time, or sequence, of delivery **[2, 2006.01]**

12/04 • • for sequential operation or multiple outlets **[2, 2006.01]**

12/06 • • for effecting pulsating flow **[2, 2006.01]**

12/08 • responsive to condition of liquid or other fluent material discharged, of ambient medium or of target **[2, 2006.01]**

12/10 • • responsive to temperature or viscosity of liquid or other fluent material discharged **[2, 2006.01]**

12/12 • • responsive to conditions of ambient medium or target, e.g. humidity, temperature **[2, 2006.01]**

12/14 • for supplying a selected one of a plurality of liquids or other fluent materials to a single spray outlet **[3, 2006.01]**

12/16 • for controlling the spray area (B05B 3/00 takes precedence) **[2018.01]**
12/18 • • using fluids, e.g. gas streams **[2018.01]**
12/20 • • Masking elements, i.e. elements defining uncoated areas on an object to be coated **[2018.01]**
12/22 • • • movable relative to the spray area **[2018.01]**
12/24 • • • made at least partly of flexible material, e.g. sheets of paper or fabric **[2018.01]**
12/26 • • • for masking cavities **[2018.01]**
12/28 • • • for defining uncoated areas that are not enclosed within coated areas or vice versa, e.g. for defining U-shaped border lines **[2018.01]**
12/30 • • • specially adapted for vehicle wheels **[2018.01]**
12/32 • • Shielding elements, i.e. elements preventing overspray from reaching areas other than the object to be sprayed (nozzles with integral shielding elements B05B 1/28) **[2018.01]**
12/34 • • • movable relative to the spray area **[2018.01]**
12/36 • • • Side shields, i.e. shields extending in a direction substantially parallel to the spray jet **[2018.01]**

13/00 Machines or plants for applying liquids or other fluent materials to surfaces of objects or other work by spraying, not covered by groups B05B 1/00-B05B 11/00 (processes for applying liquids or other fluent materials to surfaces in general B05D; means for supplying or discharging liquid or other fluent material for this purpose, see the relevant one of groups B05B 1/00-B05B 12/00) **[1, 3, 2006.01]**

13/02 • Means for supporting work; Arrangement or mounting of spray heads; Adaptation or arrangement of means for feeding work (B05B 13/06 takes precedence) **[1, 2006.01]**
13/04 • • the spray heads being moved during operation **[1, 2006.01]**
13/06 • specially designed for treating the inside of hollow bodies (spray heads B05B 1/00-B05B 7/00) **[1, 2006.01]**

14/00 Arrangements for collecting, re-using or eliminating excess spraying material (arrangements integral with nozzles B05B 1/28) **[2018.01]**

14/10 • the excess material being particulate (for spray booths B05B 14/48) **[2018.01]**
14/20 • from moving belts, e.g. filtering belts or conveying belts **[2018.01]**
14/30 • comprising enclosures close to, or in contact with, the object to be sprayed and surrounding or confining the discharged spray or jet but not the object to be sprayed **[2018.01]**
14/40 • for use in spray booths **[2018.01]**
14/41 • • by cleaning the walls of the booth **[2018.01]**
14/42 • • using electrostatic means **[2018.01]**
14/43 • • by filtering the air charged with excess material **[2018.01]**
14/435 • • • with means for cleaning the filters by gas flow, e.g. blasts of air **[2018.01]**
14/44 • • using walls specially adapted for promoting separation of the excess material from the air, e.g. baffle plates (using wetted walls B05B 14/465) **[2018.01]**
14/45 • • using cyclone separators **[2018.01]**
14/46 • • by washing the air charged with excess material **[2018.01]**
14/462 • • • and separating the excess material from the washing liquid, e.g. for recovery **[2018.01]**
14/465 • • • using substantially vertical liquid curtains or wetted walls behind the object to be sprayed **[2018.01]**
14/468 • • • with scrubbing means arranged below the booth floor **[2018.01]**
14/48 • • specially adapted for particulate material **[2018.01]**
14/49 • • specially adapted for solvents **[2018.01]**

15/00 Details of spraying plant or spraying apparatus not otherwise provided for; Accessories [1, 4, 2006.01, 2018.01]

15/14 • Arrangements for preventing or controlling structural damage to spraying apparatus or its outlets, e.g. for breaking at desired places; Arrangements for handling or replacing damaged parts **[2018.01]**
15/16 • • for preventing non-intended contact between spray heads or nozzles and foreign bodies, e.g. nozzle guards **[2018.01]**
15/18 • • for improving resistance to wear, e.g. inserts or coatings; for indicating wear; for handling or replacing worn parts **[2018.01]**
15/20 • Arrangements for agitating the material to be sprayed, e.g. for stirring, mixing or homogenising **[2018.01]**
15/25 • • using moving elements, e.g. rotating blades **[2018.01]**
15/30 • Dip tubes **[2018.01]**
15/33 • • weighted **[2018.01]**
15/37 • • with decorative elements **[2018.01]**
15/40 • Filters located upstream of the spraying outlets **[2018.01]**
15/50 • Arrangements for cleaning; Arrangements for preventing deposits, drying-out or blockage; Arrangements for detecting improper discharge caused by the presence of foreign matter **[2018.01]**
15/52 • • for removal of clogging particles **[2018.01]**
15/522 • • • using cleaning elements penetrating the discharge openings **[2018.01]**
15/525 • • • by increasing the cross section of the discharge openings **[2018.01]**
15/528 • • • by resilient deformation of the nozzle **[2018.01]**
15/531 • • • using backflow **[2018.01]**
15/534 • • • • by reversing the nozzle relative to the supply conduit **[2018.01]**
15/55 • • using cleaning fluids **[2018.01]**
15/555 • • • discharged by cleaning nozzles **[2018.01]**
15/58 • • preventing deposits, drying-out or blockage by recirculating the fluid to be sprayed from upstream of the discharge opening back to the supplying means **[2018.01]**
15/60 • Arrangements for mounting, supporting or holding spraying apparatus **[2018.01]**
15/62 • • Arrangements for supporting spraying apparatus, e.g. suction cups **[2018.01]**
15/622 • • • ground-penetrating **[2018.01]**
15/625 • • • designed to be placed on the ground **[2018.01]**
15/628 • • • of variable length **[2018.01]**
15/63 • • Handgrips **[2018.01]**
15/65 • • Mounting arrangements for fluid connection of the spraying apparatus or its outlets to flow conduits **[2018.01]**
15/652 • • • whereby the jet can be oriented **[2018.01]**
15/654 • • • • using universal joints **[2018.01]**
15/656 • • • whereby the flow conduit length is changeable **[2018.01]**

15/658 • • • the spraying apparatus or its outlet axis being perpendicular to the flow conduit **[2018.01]**

15/68 • • Arrangements for adjusting the position of spray heads (B05B 15/628, B05B 15/652, B05B 15/656 take precedence) **[2018.01]**

15/70 • Arrangements for moving spray heads automatically to or from the working position **[2018.01]**

15/72 • • using hydraulic or pneumatic means **[2018.01]**

15/74 • • • driven by the discharged fluid **[2018.01]**

15/80 • Arrangements in which the spray area is not enclosed, e.g. spray tables **[2018.01]**

16/00 Spray booths (arrangements for collecting, re-using or eliminating excess spraying material in spray booths B05B 14/40) **[2018.01]**

16/20 • Arrangements for spraying in combination with other operations, e.g. drying; Arrangements enabling a combination of spraying operations **[2018.01]**

16/25 • • for both automatic and manual spraying **[2018.01]**

16/40 • Construction elements specially adapted therefor, e.g. floors, walls or ceilings (ceiling elements filtering inflow of air into the booth B05B 16/60; walls specially adapted for promoting separation of excess material B05B 14/44) **[2018.01]**

16/60 • Ventilation arrangements specially adapted therefor **[2018.01]**

16/80 • Movable spray booths **[2018.01]**

17/00 Apparatus for spraying or atomising liquids or other fluent materials, not covered by any other group of this subclass (dropping or releasing powdered, liquid or gaseous matter in flight B64D 1/16) **[1, 2, 2006.01]**

17/04 • operating with special methods **[1, 2006.01]**

17/06 • • using ultrasonic vibrations **[1, 2006.01]**

17/08 • Fountains (drinking fountains E03B 9/20; wash fountains E03C 1/16) **[1, 2006.01]**

B05C APPARATUS FOR APPLYING FLUENT MATERIALS TO SURFACES, IN GENERAL (spraying apparatus, atomising apparatus, nozzles B05B; plant for applying liquids or other fluent materials to objects by electrostatic spraying B05B 5/08) **[2]**

Note(s) [2, 2009.01]

1. This subclass covers apparatus or hand tools, in general, for applying liquids or other fluent materials to a surface or a part thereof, by any mechanical or physical method, in particular apparatus for obtaining a uniform distribution of liquids or other fluent materials on a surface.
2. Hand tools or apparatus using hand-held tools are classified in group B05C 17/00.

Subclass index

1/00 Apparatus in which liquid or other fluent material is applied to the surface of the work by contact with a member carrying the liquid or other fluent material, e.g. a porous member loaded with a liquid to be applied as a coating (B05C 5/02, B05C 7/00, B05C 19/00 take precedence) **[1, 2, 2006.01]**

1/02 • for applying liquid or other fluent material to separate articles **[1, 2006.01]**

1/04 • for applying liquid or other fluent material to work of indefinite length **[1, 2006.01]**

1/06 • • by rubbing contact, e.g. by brushes, by pads **[1, 2006.01]**

1/08 • • using a roller **[1, 2, 2006.01]**

1/10 • • • the liquid or other fluent material being supplied from inside the roller **[1, 2006.01]**

1/12 • • • the work being fed round the roller (B05C 1/10 takes precedence) **[1, 2006.01]**

1/14 • • using a travelling band **[1, 2, 2006.01]**

1/16 • • only at particular parts of the work **[1, 2006.01]**

3/00 Apparatus in which the work is brought into contact with a bulk quantity of liquid or other fluent material (B05C 19/00 takes precedence) **[1, 2, 2006.01]**

3/02 • the work being immersed in the liquid or other fluent material **[1, 2006.01]**

3/04 • • with special provision for agitating the work or the liquid or other fluent material **[1, 2006.01]**

3/05 • • • by applying vibrations thereto **[1, 2006.01]**

3/08 • • • the work and the liquid or other fluent material being agitated together in a container, e.g. tumbled (B05C 3/05 takes precedence) **[1, 2006.01]**

3/09 • • for treating separate articles **[1, 2006.01]**

3/10 • • • the articles being moved through the liquid or other fluent material **[1, 2006.01]**

3/109 • • • Passing liquids or other fluent materials into or through chambers containing stationary articles **[1, 2006.01]**

3/12 • • for treating work of indefinite length **[1, 2006.01]**

3/132 • • • supported on conveying means **[1, 2006.01]**

3/15 • • • not supported on conveying means **[1, 2006.01]**

3/152 • • • • the work passing in zig-zag fashion over rollers **[1, 2006.01]**

3/172 • • • • in endless form **[1, 2006.01]**

3/18 • only one side of the work coming into contact with the liquid or other fluent material (B05C 3/02 takes precedence) **[1, 2, 2006.01]**

3/20 • for applying liquid or other fluent material only at particular parts of the work (B05C 3/02 takes precedence) **[1, 2, 2006.01]**

5/00 Apparatus in which liquid or other fluent material is projected, poured or allowed to flow on to the surface of the work (B05C 7/00, B05C 19/00 take precedence) **[1, 2006.01]**

5/02 • from an outlet device in contact, or almost in contact, with the work (B05C 5/04 takes precedence) **[1, 3, 2006.01]**

5/04 • the liquid or other fluent material being supplied to the apparatus in a solid state and melted before application **[3, 2006.01]**

7/00 Apparatus specially designed for applying liquid or other fluent material to the inside of hollow work (B05C 19/00 takes precedence) **[1, 2006.01]**

7/02 • the liquid or other fluent material being projected **[1, 2006.01]**

7/04 • the liquid or other fluent material flowing or being moved through the work; the work being filled with liquid or other fluent material and emptied **[1, 2006.01]**

7/06 • by devices moving in contact with the work **[1, 2006.01]**

7/08 • • for applying liquids or other fluent materials to the inside of tubes **[1, 2006.01]**

9/00 Apparatus or plant for applying liquid or other fluent material to surfaces by means not covered by groups B05C 1/00-B05C 7/00, or in which the means of applying the liquid or other fluent material is not important (B05C 19/00 takes precedence) **[1, 2006.01]**

9/02 • for applying liquid or other fluent material to surfaces by single means not covered by groups B05C 1/00-B05C 7/00, whether or not also using other means **[1, 2006.01]**

9/04 • for applying liquid or other fluent material to opposite sides of the work **[1, 2006.01]**

9/06 • for applying two different liquids or other fluent materials, or the same liquid or other fluent material twice, to the same side of the work **[1, 2006.01]**

9/08 • for applying liquid or other fluent material and performing an auxiliary operation **[1, 2, 2006.01]**

9/10 • • the auxiliary operation being performed before the application (B05C 9/14 takes precedence) **[1, 2006.01]**

9/12 • • the auxiliary operation being performed after the application (B05C 9/14 takes precedence) **[1, 2006.01]**

9/14 • • the auxiliary operation involving heating **[1, 2006.01]**

11/00 Component parts, details or accessories not specifically provided for in groups B05C 1/00-B05C 9/00 (B05C 19/00 takes precedence; means for manipulating or holding work B05C 13/00; enclosures for apparatus, booths B05C 15/00) **[1, 2, 2006.01]**

11/02 • Apparatus for spreading or distributing liquids or other fluent materials already applied to a surface (B05C 7/00 takes precedence; hand tools for such purposes B05C 17/10); Control of the thickness of a coating **[1, 2, 2006.01]**

11/04 • • with blades **[1, 2006.01]**

11/06 • • with a blast of gas or vapour **[1, 2, 2006.01]**

11/08 • • Spreading liquid or other fluent material by manipulating the work, e.g. tilting **[1, 2006.01]**

11/10 • Storage, supply or control of liquid or other fluent material; Recovery of excess liquid or other fluent material **[1, 2006.01]**

11/105 • • by capillary action, e.g. using wicks **[1, 2006.01]**

11/11 • Vats or other containers for liquids or other fluent materials **[1, 2006.01]**

11/115 • • Sealing means for work inlet or outlet **[1, 2006.01]**

13/00 Means for manipulating or holding work, e.g. for separate articles [2, 2006.01]

13/02 • for particular articles **[2, 2006.01]**

15/00 Enclosures for apparatus; Booths (spray booths B05B 16/00) **[4, 2006.01]**

17/00 Hand tools or apparatus using hand-held tools, for applying liquids or other fluent materials to, for spreading applied liquids or other fluent materials on, or for partially removing applied liquids or other fluent materials from, surfaces (brushes A46B) **[2, 2006.01]**

17/005 • for discharging material through an outlet orifice by pressure (B05C 17/02 takes precedence) **[5, 2006.01]**

17/01 • • with mechanically or electrically actuated piston or the like **[5, 2006.01]**

17/015 • • with pneumatically actuated piston or the like **[5, 2006.01]**

17/02 • Rollers **[2, 2006.01]**

17/025 • • with self-contained reservoir **[5, 2006.01]**

17/03 • • with feed system for supplying material from an external source **[5, 2006.01]**

17/035 • • • direct to the outer surface of the roller **[5, 2006.01]**

17/04 • • Stencil rollers **[2, 2006.01]**

17/06 • Stencils (B05C 17/04 takes precedence) **[2, 2006.01]**

17/08 • • Stencil holders **[2, 2006.01]**

17/10 • Hand tools for removing partially or for spreading or redistributing applied liquids or other fluent materials, e.g. colour touchers **[2, 2006.01]**

17/12 • Other hand tools for producing patterns **[2, 2006.01]**

19/00 Apparatus specially adapted for applying particulate materials to surfaces [2, 2006.01]

19/02 • using fluidised-bed technique **[2, 2006.01]**

19/04 • the particulate material being projected, poured or allowed to flow onto the surface of the work (B05C 19/02 takes precedence) **[5, 2006.01]**

19/06 • Storage, supply or control of the application of particulate material; Recovery of excess particulate material **[5, 2006.01]**

21/00 Accessories or implements for use in connection with applying liquids or other fluent materials to surfaces, not provided for in groups B05C 1/00-B05C 19/00 [2, 2006.01]

B05D PROCESSES FOR APPLYING FLUENT MATERIALS TO SURFACES, IN GENERAL (conveying articles or workpieces through baths of liquid B65G, e.g. B65G 49/02) **[2]**

Note(s) [2]

This subclass covers :

- processes for applying liquids or other fluent materials to a surface or part of a surface, in general, by any mechanical or physical method and particularly processes producing a uniform distribution of liquids or other fluent materials on a surface;

- pretreatment of surfaces to which liquids or other fluent materials are to be applied;
- after-treatment of applied coatings.

Subclass index

1/00 **Processes for applying liquids or other fluent materials** (B05D 5/00, B05D 7/00 take precedence) **[2, 2006.01]**

1/02 • performed by spraying **[2, 2006.01]**

1/04 • • involving the use of an electrostatic field **[2, 2006.01]**

1/06 • • • Applying particulate materials **[2, 2006.01]**

1/08 • • Flame spraying **[2, 2006.01]**

1/10 • • • Applying particulate materials **[2, 2006.01]**

1/12 • • Applying particulate materials (B05D 1/06, B05D 1/10 take precedence) **[2, 2006.01]**

1/14 • • • Flocking **[2, 2006.01]**

1/16 • Flocking otherwise than by spraying **[2, 2006.01]**

1/18 • performed by dipping **[2, 2006.01]**

1/20 • • substances to be applied floating on a fluid **[2, 2006.01]**

1/22 • • using fluidised-bed technique **[2, 2006.01]**

1/24 • • • Applying particulate materials **[2, 2006.01]**

1/26 • performed by applying the liquid or other fluent material from an outlet device in contact with, or almost in contact with, the surface **[2, 2006.01]**

1/28 • performed by transfer from the surfaces of elements carrying the liquid or other fluent material, e.g. brushes, pads, rollers **[2, 2006.01]**

1/30 • performed by gravity only, i.e. flow coating **[2, 2006.01]**

1/32 • using means for protecting parts of a surface not to be coated, e.g. using stencils, resists **[2, 2006.01]**

1/34 • Applying different liquids or other fluent materials simultaneously **[2, 2006.01]**

1/36 • Successively applying liquids or other fluent materials, e.g. without intermediate treatment **[2, 2006.01]**

1/38 • • with intermediate treatment **[2, 2006.01]**

1/40 • Distributing applied liquids or other fluent materials by members moving relatively to surface **[2, 2006.01]**

1/42 • • by non-rotary members **[2, 2006.01]**

3/00 **Pretreatment of surfaces to which liquids or other fluent materials are to be applied; After-treatment of applied coatings, e.g. intermediate treating of an applied coating preparatory to subsequent applications of liquids or other fluent materials [2, 2006.01]**

3/02 • by baking **[2, 2006.01]**

3/04 • by exposure to gases **[2, 2006.01]**

3/06 • by exposure to radiation (B05D 3/02 takes precedence) **[2, 2006.01]**

3/08 • by flames **[2, 2006.01]**

3/10 • by other chemical means **[2, 2006.01]**

3/12 • by mechanical means **[2, 2006.01]**

3/14 • by electrical means **[2, 2006.01]**

5/00 **Processes for applying liquids or other fluent materials to surfaces to obtain special surface effects, finishes or structures [2, 2006.01]**

5/02 • to obtain a matt or rough surface **[2, 2006.01]**

5/04 • to obtain a surface receptive to ink or other liquid (B05D 5/02 takes precedence) **[2, 2006.01]**

5/06 • to obtain multicolour or other optical effects (B05D 5/02 takes precedence) **[2, 2006.01]**

5/08 • to obtain an anti-friction or anti-adhesive surface **[2, 2006.01]**

5/10 • to obtain an adhesive surface **[2, 2006.01]**

5/12 • to obtain a coating with specific electrical properties **[2, 2006.01]**

7/00 **Processes, other than flocking, specially adapted for applying liquids or other fluent materials to particular surfaces or for applying particular liquids or other fluent materials [2, 2006.01]**

7/02 • to macromolecular substances, e.g. rubber **[2, 2006.01]**

7/04 • • to surfaces of films or sheets **[2, 2006.01]**

7/06 • to wood **[2, 2006.01]**

7/08 • • using synthetic lacquers or varnishes **[2, 2006.01]**

7/10 • • • based on cellulose derivatives **[2, 2006.01]**

7/12 • to leather **[2, 2006.01]**

7/14 • to metal, e.g. car bodies **[2, 2006.01]**

7/16 • • using synthetic lacquers or varnishes **[2, 2006.01]**

7/18 • • • based on cellulose derivatives **[2, 2006.01]**

7/20 • to wires **[2, 2006.01]**

7/22 • to internal surfaces, e.g. of tubes **[2, 2006.01]**

7/24 • for applying particular liquids or other fluent materials **[2, 2006.01]**

7/26 • • synthetic lacquers or varnishes (B05D 7/08, B05D 7/16 take precedence) **[2, 2006.01]**