

CPC**COOPERATIVE PATENT CLASSIFICATION****B05C**

APPARATUS FOR APPLYING LIQUIDS OR OTHER 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](#); processes for applying liquids or other fluent materials to surfaces [B05D](#); {coating of foodstuffs [A23P 1/084](#), [A23P 1/085](#), of shaped or preshaped ceramic articles [B28B 11/04](#)})

NOTES

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. Attention is drawn to the Note following the title of class [B05](#).

WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[B05C 5/04](#) covered by [B05C 5/001](#), [B05C 11/1042](#)

Apparatus for applying liquids or other fluent materials to surfaces (hand tools or apparatus using hand-held tools [B05C 17/00](#); specially adapted for applying particulate materials [B05C 19/00](#))

B05C 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](#) take precedence)

- [B05C 1/003](#) . {incorporating means for heating or cooling the liquid or other fluent material ([B05C 11/1042](#) takes precedence)}
- [B05C 1/006](#) . {for applying liquid or other fluent material to the edges of essentially flat articles}
- [B05C 1/02](#) . for applying liquid or other fluent material to separate articles {([B05C 1/006](#) takes precedence)}
- [B05C 1/022](#) . . {to the outer surface of hollow articles ([B05C 1/027](#) takes precedence)}
- [B05C 1/025](#) . . {to flat rectangular articles, e.g. flat sheets ([B05C 1/027](#) takes precedence)}
- [B05C 1/027](#) . . {only at particular parts of the articles (at particular parts of work of indefinite length [B05C 1/16](#))}
- [B05C 1/04](#) . for applying liquid or other fluent material to work of indefinite length {([B05C 1/003](#) takes precedence)}
- [B05C 1/06](#) . . by rubbing contact, e.g. by brushes, by pads {(brushes in general [A46B](#))}
- [B05C 1/08](#) . . using a roller {or other rotating member which contacts the work along a generating line}
- [B05C 1/0804](#) . . . {the material being applied without contact with the roller}
- [B05C 1/0808](#) . . . {Details thereof, e.g. surface characteristics}

B05C 1/0813	. . .	{characterised by means for supplying liquid or other fluent material to the roller}
B05C 1/0817	. . .	{characterised by means for removing partially liquid or other fluent material from the roller, e.g. scrapers (coating roller co-operating with dosing rollers B05C 1/0834)}
B05C 1/0821	. . .	{characterised by driving means for rollers or work}
B05C 1/0826	. . .	{the work being a web or sheets (B05C 1/0804 , B05C 1/0808 , B05C 1/0813 , B05C 1/0817 , B05C 1/0821 , B05C 1/10 , B05C 1/12 take precedence)}
B05C 1/083	. . . .	{being passed between the coating roller and one or more backing rollers}
B05C 1/0834	. . . .	{the coating roller co-operating with other rollers, e.g. dosing, transfer rollers}
B05C 1/0839	. . .	{the work being unsupported at the line of contact between the coating roller and the work}
B05C 1/0843	. . .	{the work being backed up by gas jet means for pushing the material in contact with the coating roller}
B05C 1/0847	. . .	{the circumferential speed of the coating roller and the work speed having same direction but different value}
B05C 1/0852	. . . .	{the circumferential speed of the coating roller being higher than the work speed}
B05C 1/0856	. . .	{Reverse coating rollers}
B05C 1/086	. . .	{a pool of coating material being formed between a roller, e.g. a dosing roller and an element cooperating therewith}
B05C 1/0865	. . . .	{the cooperating element being a roller, e.g. a coating roller}
B05C 1/0869	. . . .	{the work contacting the pool}
B05C 1/0873	. . .	{Controlling means responsive to conditions of the liquid or other fluent material, of the ambient medium, of the roller or of the work}
B05C 1/0878	. . . .	{responsive to the pressure applied between two rollers, e.g. between the coating roller and a backing roller or between the coating roller and a dosing roller}
B05C 1/0882	. . . .	{responsive to the distance between two rollers, e.g. between the coating roller and a backing roller}
B05C 1/0886	. . . .	{responsive to the condition of the work}
B05C 1/0891	. . . .	{responsive to the speed of moving of the work}
B05C 1/0895	. . . .	{responsive to the thickness of the weight of material applied to the work}
B05C 1/10	. . .	the liquid or other fluent material being supplied from inside the roller
B05C 1/12	. . .	the work being fed round the roller (B05C 1/10 takes precedence)
B05C 1/14	. .	using a travelling band
B05C 1/16	. .	only at particular parts of the work ({ at particular parts of separate articles B05C 1/027 })
B05C 1/165	. . .	{using a roller or other rotating member which contacts the work along a generating line}

B05C 3/00 **Apparatus in which the work is brought into contact with a bulk quantity of liquid or other fluent material**

- B05C 3/005 . {incorporating means for heating or cooling the liquid or other fluent material (B05C 11/1042 takes precedence)}
- B05C 3/02 . the work being immersed in the liquid or other fluent material
- B05C 3/04 . . with special provision for agitating the work or the liquid or other fluent material
- B05C 3/05 . . . by applying vibrations thereto
- B05C 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)
- B05C 3/09 . . for treating separate articles
- B05C 3/10 . . . the articles being moved through the liquid or other fluent material (conveying articles through baths B65G, e.g. B65G 49/02)
- B05C 3/109 . . . Passing liquids or other fluent materials into or through chambers containing stationary articles
- B05C 3/12 . . for treating work of indefinite length
- B05C 3/125 . . . {the work being a web, band, strip or the like}
- B05C 3/132 . . . supported on conveying means {(B05C 3/125 takes precedence)}
- B05C 3/15 . . . not supported on conveying means {(B05C 3/125 takes precedence); web or filament feeding arrangements B65H}
- B05C 3/152 the work passing in zig-zag fashion over rollers
- B05C 3/172 in endless form
- B05C 3/18 . only one side of the work coming into contact with the liquid or other fluent material (B05C 3/02 takes precedence)
- B05C 3/20 . for applying liquid or other fluent material only at particular parts of the work (B05C 3/02 takes precedence)

B05C 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 takes precedence; essentially involving spraying or electrostatic projection B05B)**

- B05C 5/001 . {incorporating means for heating or cooling the liquid or other fluent material (B05C 11/1042 takes precedence)}
- B05C 5/002 . {the work consisting of separate articles (B05C 5/0208 takes precedence)}
- B05C 5/004 . . {the work consisting of separate rectangular flat articles, e.g. flat sheets}
- B05C 5/005 . {Curtain coaters (B05C 5/008 takes precedence)}
- B05C 5/007 . {Slide-hopper coaters, i.e. apparatus in which the liquid or other fluent material flows freely on an inclined surface before contacting the work}
- B05C 5/008 . . {Slide-hopper curtain coaters}
- B05C 5/02 . {the liquid or other fluent material being discharged through an outlet orifice by pressure, e.g.} from an outlet device in contact or almost in contact, with the work
- B05C 5/0204 . . {for applying liquid or other fluent material to the edges of essentially flat articles}
- B05C 5/0208 . . {for applying liquid or other fluent material to separate articles (B05C 5/0204 takes precedence)}

- B05C 5/0212 . . . {only at particular parts of the articles (at particular part of web, band, strip, belt or ribbon [B05C 5/025](#))}
- B05C 5/0216 {by relative movement of article and outlet according to a predetermined path}
- B05C 5/022 {the outlet being fixed during operation}
- B05C 5/0225 . . {characterised by flow controlling means, e.g. valves, located proximate the outlet ([B05C 5/0258](#), [B05C 5/0275](#) take precedence; supply valves upstream the coating head [B05C 11/1036](#))}
- B05C 5/0229 . . . {the valve being a gate valve or a sliding valve}
- WARNING**
- Not complete, see [B05C 5/0225](#)
- B05C 5/0233 {rotating valve, e.g. rotating perforated cylinder}
- WARNING**
- Not complete, see [B05C 5/0225](#)
- B05C 5/0237 . . . {Fluid actuated valves}
- WARNING**
- Not complete, see [B05C 5/0225](#)
- B05C 5/0241 . . {for applying liquid or other fluent material to elongated work, e.g. wires, cables, tubes}
- B05C 5/0245 . . {for applying liquid or other fluent material to a moving work of indefinite length, e.g. to a moving web ([B05C 5/0241](#), [B05C 5/0254](#), [B05C 5/027](#), [B05C 5/0283](#) take precedence)}
- B05C 5/025 . . . {only at particular part of the work (at particular part of separate articles [B05C 5/0212](#))}
- B05C 5/0254 . . {Coating heads with slot-shaped outlet ([B05C 5/0283](#) takes precedence)}
- B05C 5/0258 . . . {flow controlled, e.g. by a valve ([B05C 5/0262](#), [B05C 5/0266](#) take precedence)}
- B05C 5/0262 . . . {adjustable in width, i.e. having lips movable relative to each other in order to modify the slot width, e.g. to close it}
- WARNING**
- Not complete, see [B05C 5/0254](#)
- B05C 5/0266 . . . {adjustable in length, e.g. for coating webs of different width}
- WARNING**
- Not complete, see [B05C 5/0254](#)
- B05C 5/027 . . {Coating heads with several outlets, e.g. aligned transversally to the moving direction of a web to be coated ([B05C 5/0254](#) takes precedence)}
- B05C 5/0275 . . . {flow controlled, e.g. by a valve}
- WARNING**
- Not complete, see [B05C 5/027](#)
- B05C 5/0279 {independently, e.g. individually, flow controlled}

- B05C 5/0283
 - • {Flat jet coaters, i.e. apparatus in which the liquid or other fluent material is projected from the outlet as a cohesive flat jet in direction of the work}
- B05C 5/0287
 - • {with no relative movement between the outlet and a moving work during the application}
- B05C 5/0291
 - • {the material being discharged on the work through discrete orifices as discrete droplets, beads or strips that coalesce on the work or are spread on the work so as to form a continuous coating}
- B05C 5/0295
 - • {Floating coating heads or nozzles}
- B05C 7/00****Apparatus specially designed for applying liquid or other fluent material to the inside of hollow work**
- B05C 7/005
 - {by devices in contact with moving work}
- B05C 7/02
 - the liquid or other fluent material being projected
- B05C 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
- B05C 7/06
 - by devices moving in contact with the work
- B05C 7/08
 - • for applying liquids or other fluent materials to the inside of tubes
- B05C 9/00****Apparatus or plant for applying liquid or other fluent material to surfaces by means not covered by any preceding group, or in which the means of applying the liquid or other fluent material is not important**
- B05C 9/02
 - for applying liquid or other fluent material to surfaces by single means not covered by groups [B05C 1/00](#) to [B05C 7/00](#), whether or not also using other means
- B05C 9/022
 - • {to obtain ornamental coatings}
- B05C 9/025
 - • • {using silk screens or stencils}
- B05C 9/027
 - • {using applicator shoes}
- B05C 9/04
 - for applying liquid or other fluent material to opposite sides of the work
- B05C 9/045
 - • {in which the opposite sides of the work are the internal and external surfaces of hollow articles}
- B05C 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
- B05C 9/08
 - for applying liquid or other fluent material and performing an auxiliary operation
- B05C 9/10
 - • the auxiliary operation being performed before the application ([B05C 9/14 takes precedence](#))
- B05C 9/12
 - • the auxiliary operation being performed after the application ([B05C 9/14 takes precedence](#))
- B05C 9/14
 - • the auxiliary operation involving heating {or cooling}
- B05C 11/00****Component parts, details or accessories not specifically provided for in groups [B05C 1/00](#) to [B05C 9/00](#) (means for manipulating or holding work [B05C 13/00](#); enclosures for apparatus, booths [B05C 15/00](#); spray booths [B05B 15/12](#))**

- B05C 11/02
 - Apparatus for spreading or distributing liquids or other fluent materials already applied to a surface {; [Controlling means therefor](#)} ([B05C 7/00](#) takes precedence; [Hand tools for such purposes B05C 17/10](#)); Control of the thickness of a coating {by spreading or distributing liquids or other fluent materials already applied to the coated surface} ([controlling supply of liquid or other fluent material B05C 11/10](#))
- B05C 11/021
 - • {Apparatus for spreading or distributing liquids or other fluent materials already applied to the surface of an elongated body, e.g. a wire, a tube}
- B05C 11/023
 - • {Apparatus for spreading or distributing liquids or other fluent materials already applied to a surface ([B05C 11/021](#), [B05C 11/04](#) take precedence)}
- B05C 11/025
 - • • {with an essentially cylindrical body, e.g. roll or rod}
- B05C 11/026
 - • • {with an elongated body renewable by feeding it across the surface}
- B05C 11/028
 - • • {with a body having a large flat spreading or distributing surface}
- B05C 11/04
 - • with blades
- B05C 11/041
 - • • {characterised by means for positioning, loading, or deforming the blades}
- B05C 11/042
 - • • • {allowing local positioning, loading or deforming along the blades}
- B05C 11/044
 - • • {characterised by means for holding the blades}
- B05C 11/045
 - • • {characterised by the blades themselves}
- B05C 11/047
 - • • {provided with end dams}
- B05C 11/048
 - • • {Scrapers, i.e. metering blades having their edge oriented in the upstream direction in order to provide a reverse angle of attack}
- B05C 11/06
 - • with a blast of gas or vapour
- B05C 11/08
 - • Spreading liquid or other fluent material by manipulating the work, e.g. tilting
- B05C 11/10
 - Storage, supply or control of liquid or other fluent material; Recovery of excess liquid or other fluent material {([B05C 1/0813](#), [B05C 5/0225](#), [B05C 17/002](#) and [B05C 19/06](#) take precedence)}
- B05C 11/1002
 - • {Means for controlling supply, i.e. flow or pressure, of liquid or other fluent material to the applying apparatus, e.g. valves}

WARNING

not complete, see [B05C 11/10](#)
- B05C 11/1005
 - • • {responsive to condition of liquid or other fluent material already applied to the surface, e.g. coating thickness, weight or pattern}

WARNING

not complete, see [B05C 11/10](#)
- B05C 11/1007
 - • • {responsive to condition of liquid or other fluent material ([B05C 11/1005](#) takes precedence)}

WARNING

not complete, see [B05C 11/10](#)

- B05C 11/101 {responsive to weight of a container for liquid or other fluent material; responsive to level of liquid or other fluent material in a container}
WARNING
 not complete, see [B05C 11/10](#)
- B05C 11/1013 {responsive to flow or pressure of liquid or other fluent material ([B05C 11/101](#) takes precedence; Control of flow in general [G05D 7/00](#); Control of fluid pressure in general [G05D 16/00](#))}
WARNING
 not complete, see [B05C 11/10](#)
- B05C 11/1015 {responsive to a conditions of ambient medium or target, e.g. humidity, temperature ([B05C 11/1005](#) takes precedence); responsive to position or movement of the coating head relative to the target}
WARNING
 not complete, see [B05C 11/10](#)
- B05C 11/1018 {responsive to distance of target}
WARNING
 not complete, see [B05C 11/10](#)
- B05C 11/1021 {responsive to presence or shape of target ([B05C 11/1018](#) takes precedence)}
WARNING
 not complete, see [B05C 11/10](#)
- B05C 11/1023 {responsive to velocity of target, e.g. to web advancement rate}
WARNING
 not complete, see [B05C 11/10](#)
- B05C 11/1026 {Valves (in general [F16K](#); [B05C 5/0225](#) takes precedence)}
 B05C 11/1028 {Lift valves}
WARNING
 not complete, see [B05C 11/1026](#)
- B05C 11/1031 {Gate valves; Sliding valves}
WARNING
 not complete, see [B05C 11/1026](#)
- B05C 11/1034 {specially designed for conducting intermittent application of small quantities, e.g. drops, of coating material ([B05C 5/0225](#), [B05C 11/1026](#) take precedence)}

- B05C 11/1036
 - • {Means for supplying a selected one of a plurality of liquids or other fluent materials, or several in selected proportions, to the applying apparatus}
 - WARNING**
 - not complete, see [B05C 11/10](#)
- B05C 11/1039
 - • {Recovery of excess liquid or other fluent material; Controlling means therefor}
- B05C 11/1042
 - • {provided with means for heating or cooling the liquid or other fluent material in the supplying means upstream of the applying apparatus}
- B05C 11/1044
 - • {Apparatus or installations for supplying liquid or other fluent material to several applying apparatus or several dispensing outlets, e.g. to several extrusion nozzles}
- B05C 11/1047
 - • {Apparatus or installations for supplying liquid or other fluent material comprising a buffer container or an accumulator between the supply source and the applicator}
- B05C 11/105
 - • by capillary action, e.g. using wicks
- B05C 11/11
 - Vats or other containers for liquids or other fluent materials
- B05C 11/115
 - • Sealing means for work inlet or outlet
- B05C 13/00**

Means for manipulating or holding work, e.g. for separate articles
{(B05C 1/0821 takes precedence)}
- B05C 13/02
 - for particular articles
- B05C 13/025
 - • {relatively small cylindrical objects, e.g. cans, bottles}
- B05C 15/00**

Enclosures for apparatus; Booths (spray booths [B05B 15/12](#))
- B05C 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 ({casings or accessories for storing or handling solid or pasty toilet or cosmetic substances [A45D 40/00](#); brushes [A46B](#); {shoe polish applicators [A47L 23/05](#); surgical glue applicators [A61B 17/00491](#); absorbent pads, e.g. swabs, for applying media to the human body [A61F 13/15](#); {hand-held applicators for applying or spreading media, e.g. remedies, on the human body [A61M 35/003](#); implements for writing or drawing [B43K](#); hand-held desk devices for applying liquid, e.g. adhesive, by contact to surfaces [B43M 11/06](#); implements or apparatus for removing dry paint from surfaces [B44D 3/16](#) {; container closures with pads or like contents-applying means [B65D 47/42](#)})
- B05C 17/001
 - {incorporating means for heating or cooling the liquid or other fluent material ([B05C 17/00523](#) takes precedence)}
- B05C 17/002
 - {with feed system for supplying material from an external source; Supply controls therefor ([B05C 17/02](#) takes precedence)}
- B05C 17/003
 - • {with means for filling or refilling the hand tool container}
- B05C 17/005
 - for discharging material {from a reservoir or container located in or on the hand tool} through an outlet orifice by pressure {without using surface contacting members like pads or brushes}
- B05C 17/00503
 - • {Details of the outlet element ([B05C 17/00523](#) takes precedence; nozzles for deformable tubular containers [B65D 35/38](#))}

- B05C 17/00506 . . . {Means for connecting the outlet element to, or for disconnecting it from, the hand tool or its container}
- B05C 17/00509 {of the bayonet type}
- B05C 17/00513 {of the thread type}
- B05C 17/00516 . . . {Shape or geometry of the outlet orifice or the outlet element}
- B05C 17/0052 . . {Accessories therefor}
- B05C 17/00523 . . {provided with means to heat the material}
- B05C 17/00526 . . . {the material being supplied to the apparatus in a solid state, e.g. rod, and melted before application ([B05C 17/0054](#) takes precedence)}
- B05C 17/0053 {the driving means for the material being manual, mechanical or electrical}
- B05C 17/00533 {comprising a piston}
- B05C 17/00536 {the driving means comprising one or more rollers}
- B05C 17/0054 . . . {the driving means for the material being pneumatic or hydraulic}
- B05C 17/00543 {comprising a piston}
- B05C 17/00546 . . . {Details of the heating means}
- B05C 17/0055 {Burners, e.g. for catalytic combustion specially adapted for hand tools or apparatus using hand tools}
- B05C 17/00553 . . {with means allowing the stock of material to consist of at least two different components}
- B05C 17/00556 . . . {with means for adjusting the proportions of the components}
- B05C 17/00559 . . . {the different components being stored in coaxial chambers}
- B05C 17/00563 {the chambers being at least initially placed in series}
- B05C 17/00566 . . . {with a dynamic mixer in the nozzle}
- B05C 17/00569 . . {with a pump in the hand tool}
- B05C 17/00573 . . {the reservoir or container being pneumatically or hydraulically pressurized ([B05C 17/0054](#), [B05C 17/015](#) take precedence)}
- B05C 17/00576 . . {characterised by the construction of a piston as pressure exerting means, or of the co-operating container}
- B05C 17/00579 . . . {comprising means for allowing entrapped air to escape to the atmosphere}
- B05C 17/00583 . . {the container for the material to be dispensed being deformable}
- B05C 17/00586 . . {Means, generally located near the nozzle, for piercing or perforating the front part of a cartridge}
- B05C 17/00589 . . {comprising a guiding rotating element, e.g. a wheel}
- B05C 17/00593 . . {Hand tools of the syringe type}
- B05C 17/00596 . . {The liquid or other fluent material being supplied from a rigid removable cartridge having no active dispensing means, i.e. the cartridge requiring cooperation with means of the handtool to expel the material}
- B05C 17/01 . . with {manually} mechanically or electrically actuated piston or the like {([B05C 17/00533](#) takes precedence)}
- B05C 17/0103 . . . {with electrically actuated piston or the like}
- B05C 17/0106 . . . {with means for longitudinally cutting container walls during relative displacement of the piston and its cooperating container}

- B05C 17/0109 . . . {the piston being pulled during application}
- B05C 17/0113 . . . {the piston rod being flexible or articulated ([B05C 17/0109](#) takes precedence)}
- B05C 17/0116 . . . {characterised by the piston driving means ([B05C 17/0103](#), [B05C 17/0109](#), [B05C 17/0113](#), [B05C 17/015](#) take precedence)}
- B05C 17/012 {Stepwise advancing mechanism, e.g. pawl and ratchets}
- B05C 17/0123 {Lever actuated}
- B05C 17/0126 {comprising an element, e.g. an arc compensating element, articulated at one end on the lever and at the other end on the piston rod driving means, e.g. a pawl}
- B05C 17/013 {comprising a freely rotating element, e.g. a roller, between the lever and a piston rod driving means, e.g. a pawl}
- B05C 17/0133 {Nut and bolt advancing mechanism, e.g. threaded piston rods}
- B05C 17/0136 . . . {comprising an energy storing element, e.g. a spring, for exerting, e.g. when released, pressure on the material ([B05C 17/015](#) takes precedence)}
- B05C 17/014 . . . {comprising means for preventing oozing ([B05C 17/0146](#) takes precedence)}
- B05C 17/0143 . . . {comprising means for cutting or cleaning the cartridge nozzle tip}
- B05C 17/0146 . . . {comprising a valve in the proximity of the nozzle that is not actuated by pressure, e.g. manually actuated}
- B05C 17/015 . . with pneumatically {or hydraulically} actuated piston or the like {([B05C 17/00543](#) takes precedence)}
- B05C 17/02 . Rollers; {(for applying toilet or cosmetic substances [A45D 34/04](#)); Hand tools comprising coating rollers or coating endless belts}
- B05C 17/0202 . . {Hand tools comprising a coating endless belt}
- B05C 17/0205 . . {characterised by the handle, e.g. handle shape or material ([B05C 17/0217](#), [B05C 17/022](#) take precedence)}
- B05C 17/0207 . . {characterised by the cover, e.g. cover material or structure, special surface for producing patterns ([B05C 17/0212](#), [B05C 17/0352](#) take precedence)}
- B05C 17/021 . . {comprising means to avoid excessive crushing of the roller cover, e.g. a spacer}
- B05C 17/0212 . . {the coating surface of the roller being a body of revolution generated by a generatrix that is not a straight line parallel to the roller axis, e.g. for allowing coating of non planar surfaces ([B05C 17/0227](#), [B05C 17/0352](#) take precedence)}
- B05C 17/0215 . . {the coating roller itself, i.e. not only its cover being deformable, e.g. to allow proper coating of non-plane surfaces ([B05C 17/0227](#) takes precedence)}
- B05C 17/0217 . . {comprising a frame supporting the coating roller at both ends or being intended to be hold at both ends by the user ([B05C 17/0222](#), [B05C 17/0227](#), [B05C 17/0352](#), [B05C 17/0357](#) take precedence)}
- B05C 17/022 . . {comprising means for angularly adjusting or allowing angular movement of the roller relative to its handle ([B05C 17/0227](#) takes precedence)}
- B05C 17/0222 . . {comprising protecting shields, drip pans, spatter guards or the like ([B05C 17/03](#) take precedence)}
- B05C 17/0225 . . {comprising a lateral plate, edge guard or shield}

- B05C 17/0227 . . {comprising several coating rollers ([B05C 17/0352](#) takes precedence)}
- B05C 17/023 . . . {all of them having parallel axes}
- B05C 17/0232 {all of them having the same axis}
- B05C 17/0235 . . {Rollers comprising an additional non-rotating applicator or comprising a coating roller replaceable by a non-rotating applicator}
- B05C 17/0237 . . {comprising means for preventing the rotation of the roller ([B05C 17/024](#) takes precedence)}
- B05C 17/024 . . {the coating roller being motor driven}
- B05C 17/0242 . . {comprising rotating guiding elements}
- B05C 17/0245 . . {Accessories}
- B05C 17/0247 . . {Rollers for coating under water}
- B05C 17/025 . . with self-contained reservoir {or container for liquid or other fluent material, located inside the coating roller}
- B05C 17/03 . . with feed system for supplying material from an external source {or with a reservoir or container for liquid or other fluent material located in or on the hand tool outside the coating roller}
- B05C 17/0308 . . . {the liquid being supplied to the inside of the coating roller}
- B05C 17/0316 . . . {with pressurised or compressible container}
- B05C 17/0325 {attached to the hand tool, e.g. into the handle}
- B05C 17/0333 . . . {with pump}
- B05C 17/0341 {attached to the hand tool}
- B05C 17/035 . . . direct {or indirectly} to the outer surface of the {coating} roller
- B05C 17/0352 {indirectly, i.e. by using transfer means, e.g. pads, brushes, rollers or bands}
- B05C 17/0355 {using transfer rollers}
- B05C 17/0357 {directly from a container attached to the hand tool, e.g. by gravity or dipping}
- B05C 17/04 . . Stencil rollers ([B05C 17/0207](#) takes precedence)}
- B05C 17/06 . Stencils ([B05C 17/04](#) takes precedence; stencils used in connection with printing plates or foils [B41N 1/24](#); drawing accessories [B43L 13/00](#))
- B05C 17/08 . . Stencil holders
- B05C 17/10 . Hand tools for removing partially or for spreading or redistributing applied liquids or other fluent materials, e.g. colour touchers
- B05C 17/12 . Other hand tools for producing patterns
- B05C 19/00** **Apparatus specially adapted for applying particulate materials to surfaces**
- B05C 19/001 . {Flocking}
- B05C 19/002 . . {Electrostatic flocking (see for electrostatic projection or pulverisation [B05B](#))}
- B05C 19/004 . . {from an outlet device in contact, or almost in contact with the work}
- B05C 19/005 . {Apparatus specially designed for applying particulate materials to the inside of hollow work}
- B05C 19/007 . . {for applying the particulate materials to the inside of hollow tubes}

- B05C 19/008
 - {Accessories or implements for use in connection with applying particulate materials to surfaces; not provided elsewhere in [B05C 19/00](#)}
- B05C 19/02
 - using fluidised-bed techniques ([fluidised-bed technique in general B01J 8/24](#))
- B05C 19/025
 - • {Combined with electrostatic means}
- B05C 19/04
 - the particulate material being projected, poured or allowed to flow onto the surface of the work ([B05C 19/02 takes precedence; involving spraying or electrostatic projection B05B](#)) {(B05C 19/005 takes precedence)}
- B05C 19/06
 - Storage, supply or control of the application of particulate material; Recovery of excess particulate material
- B05C 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](#) to [B05C 19/00](#) (accessories or implements for use in connection with painting or artistic drawing and fully provided for in [B44D 3/02](#) to [B44D 3/38](#), see subgroups of [B44D 3/00](#))
- B05C 21/005
 - {Masking devices (stencils [B05C 17/06](#); masking devices for which the means for applying liquids or other fluent material is spraying or is not important [B05B 15/045](#))}