CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

SHAPING

B24 GRINDING; POLISHING

(NOTE omitted)

B24C ABRASIVE OR RELATED BLASTING WITH PARTICULATE MATERIAL

NOTES

1. This subclass covers:
   • the use of a blast of any particles or pellets dispersed in air, gas, or liquid for the treatment of surfaces or cutting of materials, the particles usually being of abrasive material;
   • the equivalent use of a jet of particles or pellets projected or energised by means other than a stream of air
   • {the equivalent use of material without particles or pellets for deburring, removal of extended surface areas or jet milling of local recessions, e.g. grooves}

2. In this subclass, the following terms are used with the meanings indicated:
   • “abrasive” covers any material used in the manner mentioned in Note (1) above;
   • “blast” covers any equivalent jet of material mentioned in Note (1) above

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00 Methods for use of abrasive blasting for producing particular effects; Use of auxiliary equipment in connection with such methods

1/003 . . . [using material which dissolves or changes phase after the treatment, e.g. ice, CO₂]
1/006 . . . [using material without particles or pellets for deburring, removal of extended surface areas or jet milling of local recessions, e.g. grooves]
1/02 . . . for sharpening or cleaning cutting tools, e.g. files
1/04 . . . for treating only selected parts of a surface, e.g. for carving stone or glass
1/045 . . . . . . {for cutting (energy dissipating devices therefor B26F 3/008)}
1/06 . . . for producing matt surfaces, e.g. on plastic materials, on glass
1/08 . . . for polishing surfaces, e.g. {smoothing a surface} by making use of liquid-borne abrasives
1/083 . . . . . . {Deburring}
1/086 . . . . . . {Descaling; Removing coating films}
1/10 . . . for compacting surfaces, e.g. shot-peening (for deforming sheet metal, tubes or profiles B21D 31/06; as a metallurgical treatment C21D 7/00, C22F 1/00)

3/00 Abrasive blasting machines or devices; Plants

3/02 . . . characterised by the arrangement of the component assemblies with respect to each other (B24C 3/08, B24C 3/18 take precedence)
3/04 . . . . . . stationary
3/06 . . . . . . movable; portable
3/062 . . . . . . {for vertical surfaces}
3/065 . . . . . . {with suction means for the abrasive and the waste material}
3/067 . . . . . . . {Self-contained units for floorings}

3/08 . . . essentially adapted for abrasive blasting of travelling stock or travelling workpieces
3/081 . . . . {for travelling bundles of wires}
3/083 . . . . {Transfer or feeding devices; Accessories therefor}
3/085 . . . . {the travelling workpieces being moved into different working positions during travelling}
3/086 . . . . . . {whereby the workpieces are turned through a rotational arc of about 180 degrees}
3/088 . . . . {using a vibratory transfer mechanism}
3/10 . . . . for treating external surfaces
3/12 . . . . . . Apparatus using nozzles
3/14 . . . . . . Apparatus using impellers
3/16 . . . . for treating internal surfaces
3/18 . . . . essentially provided with means for moving workpieces into different working positions (B24C 3/08 takes precedence)
3/20 . . . . . . the work being supported by turntables
3/22 . . . . . . Apparatus using nozzles
3/24 . . . . . . Apparatus using impellers
3/26 . . . . . . the work being supported by barrel cages, i.e. tumbers; Gimbal mountings therefor
3/263 . . . . . . . {using refrigerating means}
3/266 . . . . . . . {for continuously travelling workpieces}
3/28 . . . . . . Apparatus using nozzles
3/30 . . . . . . Apparatus using impellers
3/32 . . . . . . . designed for abrasive blasting of particular work, e.g. the internal surfaces of cylinder blocks (B24C 3/08, B24C 3/18 take precedence)
3/322 . . . . . . . . . . . . . . . . . . . {for electrical components}
3/325 . . . . . . . . . . . . . . . . . . . {for internal surfaces, e.g. of tubes}
by an axially-moving flow of abrasive particles without passing a blast gun, impeller or the like along the internal surface (polishing or abrading surfaces using plastically deformable grinding compound, moved relatively to the workpiece under the influence of pressure B24B 31/116)

for cleaning sparking plugs

Accessories or equipment for abrasive blasting machines or devices

Devices or accessories for generating abrasive blasts

Vibratory devices, e.g. for generating abrasive blasts by ultrasonic vibrations (sonic cleaning in general B08B 3/12)

Blast guns, e.g. for generating high velocity abrasive fluid jets for cutting materials {perforating by fluid jet B26F 1/26}

Nozzles therefor (nozzles in general B05B)

Impeller wheels; Rotor blades therefor

(Rotor blades or vanes; Locking means therefor)

One-piece wheels; Integral impeller units, e.g. made by casting

Housings; Accessories therefor, e.g. liners

(Transferring the abrasive particles from the feeding means onto the propeller blades, e.g. using central impellers)

Devices for generating abrasive blasts non-mechanically, e.g. of metallic abrasives by means of a magnetic field {or by detonating cords}

Equipment for feeding abrasive material; Controlling the flowability, constitution, or other physical characteristics of abrasive blasts

The abrasive material being fed in a liquid carrier

(with control of feed parameters, e.g. feed rate of abrasive material or carrier)

(of feed pressure)

(with means for preventing clogging of the equipment)

The blasting medium being a gaseous stream

The abrasive material being fed in a gaseous carrier

(with control of feed parameters, e.g. feed rate of abrasive material or carrier)

(of feed pressure)

(with means for preventing clogging of the equipment or for preventing abrasive entering the airway)

The blasting medium being a liquid stream

The abrasive material being fed in a mixture of liquid and gas (B24C 7/0038, B24C 7/0076 take precedence: blasting medium with additives B24C 11/005)

The abrasive material being fed by mechanical means, e.g. by screw conveyors

Appurtenances of abrasive blasting machines or devices, e.g. working chambers, arrangements for handling used abrasive material

Removing abrasive powder out of the blasting machine

Treatment of used abrasive material

Selection of abrasive materials (or additives) for abrasive blasts (polishing compositions C09G)

(of additives, e.g. anti-corrosive or disinfecting agents in solid, liquid or gaseous form)