

# 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.

|             |  |       |   |
|-------------|--|-------|---|
| <b>1/00</b> | <b>Methods for use of abrasive blasting for producing particular effects; Use of auxiliary equipment in connection with such methods</b>   | 3/08  | • essentially adapted for abrasive blasting of travelling stock or travelling workpieces  |
| 1/003       | • {using material which dissolves or changes phase after the treatment, e.g. ice, CO <sub>2</sub> }  | 3/081 | • • {for travelling bundles of wires}   |
| 1/006       | • {using material without particles or pellets for deburring, removal of extended surface areas or jet milling of local recessions, e.g. grooves}  | 3/083 | • • {Transfer or feeding devices; Accessories therefor}   |
| 1/02        | • for sharpening or cleaning cutting tools, e.g. files   | 3/085 | • • {the travelling workpieces being moved into different working positions during travelling}  |
| 1/04        | • for treating only selected parts of a surface, e.g. for carving stone or glass   | 3/086 | • • • {whereby the workpieces are turned through a rotational arc of about 180 degrees}   |
| 1/045       | • • {for cutting (energy dissipating devices therefor <a href="#">B26F 3/008</a> )}  | 3/088 | • • {using a vibratory transfer mechanism}  |
| 1/06        | • for producing matt surfaces, e.g. on plastic materials, on glass   | 3/10  | • • for treating external surfaces  |
| 1/08        | • for polishing surfaces, e.g. {smoothing a surface} by making use of liquid-borne abrasives   | 3/12  | • • • Apparatus using nozzles   |
| 1/083       | • • {Deburring}  | 3/14  | • • • Apparatus using impellers   |
| 1/086       | • • {Descaling; Removing coating films}  | 3/16  | • • for treating internal surfaces  |
| 1/10        | • for compacting surfaces, e.g. shot-peening (for deforming sheet metal, tubes or profiles <a href="#">B21D 31/06</a> ; as a metallurgical treatment <a href="#">C21D 7/00</a> , <a href="#">C22F 1/00</a> ) | 3/18  | • essentially provided with means for moving workpieces into different working positions ( <a href="#">B24C 3/08</a> takes precedence)                                      |
| <b>3/00</b> | <b>Abrasive blasting machines or devices; Plants</b>   | 3/20  | • • the work being supported by turntables  |
| 3/02        | • characterised by the arrangement of the component assemblies with respect to each other ( <a href="#">B24C 3/08</a> , <a href="#">B24C 3/18</a> take precedence)   | 3/22  | • • • Apparatus using nozzles   |
| 3/04        | • • stationary   | 3/24  | • • • Apparatus using impellers   |
| 3/06        | • • movable; portable  | 3/26  | • • the work being supported by barrel cages, i.e. tumblers; Gimbal mountings therefor  |
| 3/062       | • • • {for vertical surfaces}  | 3/263 | • • • {using refrigerating means}   |
| 3/065       | • • • {with suction means for the abrasive and the waste material}   | 3/266 | • • • {for continuously travelling workpieces}  |
| 3/067       | • • • • {Self-contained units for floorings}   | 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 ( <a href="#">B24C 3/08</a> , <a href="#">B24C 3/18</a> take precedence) |
|             |  | 3/322 | • • {for electrical components}   |
|             |  | 3/325 | • • {for internal surfaces, e.g. of tubes}  |

- 3/327 . . . {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](#))}
- 3/34 . . for cleaning sparking plugs

- 11/00 Selection of abrasive materials {or additives} for abrasive blasts (polishing compositions [C09G](#))**
- 11/005 . {of additives, e.g. anti-corrosive or disinfecting agents in solid, liquid or gaseous form}

#### Accessories or equipment for abrasive blasting machines or devices

- 5/00 Devices or accessories for generating abrasive blasts**
- 5/005 . {Vibratory devices, e.g. for generating abrasive blasts by ultrasonic vibrations (sonic cleaning in general [B08B 3/12](#))}
- 5/02 . Blast guns, e.g. for generating high velocity abrasive fluid jets for cutting materials {(perforating by fluid jet [B26F 1/26](#))}
- 5/04 . . Nozzles therefor (nozzles in general [B05B](#))
- 5/06 . Impeller wheels; Rotor blades therefor
- 5/062 . . {Rotor blades or vanes; Locking means therefor}
- 5/064 . . {One-piece wheels; Integral impeller units, e.g. made by casting}
- 5/066 . . {Housings; Accessories therefor, e.g. liners}
- 5/068 . . {Transferring the abrasive particles from the feeding means onto the propeller blades, e.g. using central impellers}
- 5/08 . Devices for generating abrasive blasts non-mechanically, e.g. of metallic abrasives by means of a magnetic field {or by detonating cords}
- 7/00 Equipment for feeding abrasive material; Controlling the flowability, constitution, or other physical characteristics of abrasive blasts**
- 7/0007 . {the abrasive material being fed in a liquid carrier}
- 7/0015 . . {with control of feed parameters, e.g. feed rate of abrasive material or carrier}
- 7/0023 . . . {of feed pressure}
- 7/003 . . {with means for preventing clogging of the equipment}
- 7/0038 . . {the blasting medium being a gaseous stream}
- 7/0046 . {the abrasive material being fed in a gaseous carrier}
- 7/0053 . . {with control of feed parameters, e.g. feed rate of abrasive material or carrier}
- 7/0061 . . . {of feed pressure}
- 7/0069 . . {with means for preventing clogging of the equipment or for preventing abrasive entering the airway}
- 7/0076 . . {the blasting medium being a liquid stream}
- 7/0084 . {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](#))}
- 7/0092 . {the abrasive material being fed by mechanical means, e.g. by screw conveyors}
- 9/00 Appurtenances of abrasive blasting machines or devices, e.g. working chambers, arrangements for handling used abrasive material**
- 9/003 . {Removing abrasive powder out of the blasting machine}
- 9/006 . {Treatment of used abrasive material}