

**CPC****COOPERATIVE PATENT CLASSIFICATION****B24C****ABRASIVE OR RELATED BLASTING WITH PARTICULATE MATERIAL****NOTE**

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

**B24C 1/00****Methods for use of abrasive blasting for producing particular effects; Use of auxiliary equipment in connection with such methods**

## B24C 1/003

- . {using material which dissolves or changes phase after the treatment e.g. ice, CO<sub>2</sub>}

## B24C 1/006

- . {using material without particles or pellets for deburring, removal of extended surface areas or jet milling of local recessions, e.g. grooves}

## B24C 1/02

- . for sharpening or cleaning cutting tools, e.g. files

## B24C 1/04

- . for treating only selected parts of a surface, e.g. for carving stone or glass

## B24C 1/045

- .. {for cutting (energy dissipating devices therefor [B26F 3/008](#))}

## B24C 1/06

- . for producing matt surfaces, e.g. on plastic materials, on glass

## B24C 1/08

- . for polishing surfaces, e.g. {smoothing a surface} by making use of liquid-borne abrasives

## B24C 1/083

- .. {Deburring}

## B24C 1/086

- .. {Descaling; Removing coating films}

## B24C 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](#))

**B24C 3/00****Abrasive blasting machines or devices; Plants**

## B24C 3/02

- . characterised by the arrangement of the component assemblies with respect to each other ([B24C 3/08](#), [B24C 3/18](#) take precedence)

## B24C 3/04

- .. stationary

## B24C 3/06

- .. movable; portable

## B24C 3/062

- ... {for vertical surfaces}

## B24C 3/065

- ... {with suction means for the abrasive and the waste material}

## B24C 3/067

- .... {Self-contained units for floorings}

- B24C 3/08 . . . essentially adapted for abrasive blasting of travelling stock or travelling workpieces
- B24C 3/081 . . . {for travelling bundles of wires}
- B24C 3/083 . . . {Transfer or feeding devices; Accessories therefor}
- B24C 3/085 . . . {the travelling workpieces being moved into different working positions during travelling}
- B24C 3/086 . . . {whereby the workpieces are turned through a rotational arc of about 180 degrees}
- B24C 3/088 . . . {using a vibratory transfer mechanism}
- B24C 3/10 . . . for treating external surfaces
- B24C 3/12 . . . Apparatus using nozzles
- B24C 3/14 . . . Apparatus using impellers
- B24C 3/16 . . . for treating internal surfaces
- B24C 3/18 . . . essentially provided with means for moving workpieces into different working positions ([B24C 3/08 takes precedence](#))
- B24C 3/20 . . . the work being supported by turn-tables
- B24C 3/22 . . . Apparatus using nozzles
- B24C 3/24 . . . Apparatus using impellers
- B24C 3/26 . . . the work being supported by barrel cages, i.e. tumblers; Gimbal mountings therefor
- B24C 3/263 . . . {using refrigerating means}
- B24C 3/266 . . . {for continuously travelling workpieces}
- B24C 3/28 . . . Apparatus using nozzles
- B24C 3/30 . . . Apparatus using impellers
- B24C 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](#))
- B24C 3/322 . . . {for electrical components}
- B24C 3/325 . . . {for internal surfaces, e.g. of tubes}
- B24C 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](#))}
- B24C 3/34 . . . for cleaning sparking plugs

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

- B24C 5/00** **Devices or accessories for generating abrasive blasts**
- B24C 5/005 . . . {Vibratory devices, e.g. for generating abrasive blasts by ultrasonic vibrations ([sonic cleaning in general B08B 3/12](#))}
- B24C 5/02 . . . Blast guns, e.g. for generating high velocity abrasive fluid jets for cutting materials {([perforating by fluid jet B26F 1/26](#))}
- B24C 5/04 . . . Nozzles therefor ([nozzles in general B05B](#))
- B24C 5/06 . . . Impeller wheels; Rotor blades therefor
- B24C 5/062 . . . {Rotor blades or vanes; Locking means therefor}
- B24C 5/064 . . . {One-piece wheels; Integral impeller units, e.g. made by casting}

- B24C 5/066 . . {Housings; Accessories therefor, e.g. liners}
- B24C 5/068 . . {Transferring the abrasive particles from the feeding means onto the propeller blades, e.g. using central impellers}
- B24C 5/08 . Devices for generating abrasive blasts non-mechanically, e.g. of metallic abrasives by means of a magnetic field {or by detonating cords}
  
- B24C 7/00** **Equipment for feeding abrasive material; Controlling the flowability, constitution, or other physical characteristics of abrasive blasts**
  - B24C 7/0007 . {the abrasive material being fed in a liquid carrier}
  - B24C 7/0015 . . {with control of feed parameters, e.g. feed rate of abrasive material or carrier}
  - B24C 7/0023 . . . {of feed pressure}
  - B24C 7/003 . . {with means for preventing clogging of the equipment}
  - B24C 7/0038 . . {the blasting medium being a gaseous stream}
  - B24C 7/0046 . {the abrasive material being fed in a gaseous carrier}
  - B24C 7/0053 . . {with control of feed parameters, e.g. feed rate of abrasive material or carrier}
  - B24C 7/0061 . . . {of feed pressure}
  - B24C 7/0069 . . {with means for preventing clogging of the equipment or for preventing abrasive entering the airway}
  - B24C 7/0076 . . {the blasting medium being a liquid stream}
  - B24C 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](#))}
  - B24C 7/0092 . {the abrasive material being fed by mechanical means, e.g. by screw conveyors}
  
- B24C 9/00** **Appurtenances of abrasive blasting machines or devices, e.g. working chambers, arrangements for handling used abrasive material**
  - B24C 9/003 . {Removing abrasive powder out of the blasting machine}
  - B24C 9/006 . {Treatment of used abrasive material}
  
- B24C 11/00** **Selection of abrasive materials {or additives} for abrasive blasts (polishing compositions [C09G](#))**
  - B24C 11/005 . {of additives, e.g. anti-corrosive or disinfecting agents in solid, liquid or gaseous form}