

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

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 } 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

**Guidance heading: 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 }