

**CPC****COOPERATIVE PATENT CLASSIFICATION****B03B****SEPARATING SOLID MATERIALS USING LIQUIDS OR USING PNEUMATIC TABLES OR JIGS** (removing fluids from solids [B01D](#);

magnetic or electrostatic separation of solid materials from solid materials or fluids, separation by high voltage electric fields [B03C](#); flotation differential sedimentation [B03D](#); separating by dry methods [B07](#); screening or sifting [B07B](#); by picking [B07C](#); separating peculiar to particular materials and provided for in other single classes, see the relevant classes)

**B03B 1/00**

**Conditioning for facilitating separation by altering physical properties of the matter to be treated** (pre-treatment of ores in general [C22B](#){ Pretreatment prior to magnetic separation [B03C 1/00](#)})

## B03B 1/02

- Preparatory heating

## B03B 1/04

- by additives

## B03B 1/06

- by varying ambient atmospheric pressure

**B03B 4/00**

**Separating by pneumatic tables or by pneumatic jigs** (sink-float separation using dry heavy media [B03B 5/46](#))

**NOTE**

Group [B03B 4/005](#) takes precedence over groups [B03B 4/02](#) to [B03B 4/065](#)

## B03B 4/005

- {the currents being pulsating, e.g. pneumatic jigs; combination of continuous and pulsating currents}

## B03B 4/02

- using swinging or shaking tables

## B03B 4/04

- using rotary tables or tables formed by travelling belts (separating solids from solids using gas currents and revolving drums [B07B 4/06](#))

## B03B 4/06

- using fixed and inclined tables;{using stationary pneumatic tables, e.g. fluidised beds}

## B03B 4/065

- .. {having inclined portions}

**B03B 5/00**

**Washing granular, powdered or lumpy materials; Wet separating** (separating by pneumatic tables or by pneumatic jigs [B03B 4/00](#))

## B03B 5/02

- using shaken, pulsated or stirred beds as the principal means of separation ([B03B 5/28](#) , [B03B 5/48](#) take precedence)

## B03B 5/04

- .. on shaking tables (on vanners [B03B 5/08](#))

## B03B 5/06

- ... Constructional details of shaking tables, e.g. riffing

## B03B 5/08

- .. on vanners

## B03B 5/10

- .. on jigs

## B03B 5/12

- ... using pulses generated mechanically in fluid

## B03B 5/14

- .... Plunger jigs

## B03B 5/16

- .... Diaphragm jigs

## B03B 5/18

- .... Moving-sieve jigs

## B03B 5/20

- ... using pulses generated by air injection

- B03B 5/22 . . . using pulses generated by liquid injection
- B03B 5/24 . . . Constructional details of jigs, e.g. pulse control devices
- B03B 5/26 . . in sluices
- B03B 5/28 . by sink-float separation
- B03B 5/30 . . using heavy liquids or suspensions
- B03B 5/32 . . . using centrifugal force ([centrifuges B04B](#) ; [cyclones B04C](#))
- B03B 5/34 . . . . Applications of hydrocyclones
- B03B 5/36 . . . Devices therefor, other than using centrifugal force ([jigs B03B 5/10](#))
- B03B 5/38 . . . . of conical receptacle type
- B03B 5/40 . . . . of trough type
- B03B 2005/405 . . . . . {using horizontal currents}
- B03B 5/42 . . . . of drum of lifting wheel type
- B03B 5/44 . . . Application of particular media therefor
- B03B 5/442 . . . . {composition of heavy media}
- B03B 5/445 . . . . . {composition of dry heavy media}
- B03B 5/447 . . . . {recovery of heavy media}
- B03B 5/46 . . using dry heavy media; Devices therefor
- B03B 5/48 . by mechanical classifiers ([sink-float separation aspects B03B 5/28](#))
- B03B 5/50 . . Rake classifiers
- B03B 5/52 . . Spiral classifiers
- B03B 5/54 . . Drag classifiers
- B03B 5/56 . . Drum classifiers
- B03B 5/58 . . Bowl classifiers
- B03B 5/60 . by non-mechanical classifiers, e.g. slime tanks ([using shaken, pulsated or stirred beds as the principal means of separation B03B 5/02](#) ; [hydraulic classifiers B03B 5/62](#) ; [water impulse classifiers B03B 5/68](#))
- B03B 5/62 . by hydraulic classifiers, e.g. of launder, tank, spiral or helical chute concentrator type
- B03B 5/623 . . {Upward current classifiers}
- B03B 5/626 . . {Helical separators}
- B03B 5/64 . . of the free settling type
- B03B 5/66 . . of the hindered settling type
- B03B 5/68 . by water impulse ([shaking tables B03B 5/04](#) ; [jigs B03B 5/10](#) ; [hydraulic classifiers B03B 5/62](#))
- B03B 5/70 . . on tables or strakes
- B03B 5/72 . . . which are movable
- B03B 5/74 . . . . Revolving tables
- B03B 7/00** **Combinations of wet processes or apparatus with other processes or apparatus, e.g. for dressing ores or garbage**
- B03B 9/00** **General arrangement of separating plant, e.g. flow sheets**
- B03B 9/005 . {specially adapted for coal}

- B03B 9/02 . specially adapted for oil-sand, oil-chalk, oil-shales, ozokerite, bitumen, or the like
- B03B 9/04 . specially adapted for furnace residues, smeltings, or foundry slags
- B03B 9/06 . specially adapted for refuse
- B03B 9/061 . . {the refuse being industrial}
- B03B 9/062 . . . {the refuse being glass}
- B03B 9/063 . . . {the refuse being concrete slurry}
- B03B 9/065 . . . {the refuse being building rubble}
- B03B 2009/066 . . {the refuse being batteries}
- B03B 2009/067 . . {the refuse being carpets}
- B03B 2009/068 . . {Specific treatment of shredder light fraction}
  
- B03B 11/00** **Feed or discharge devices integral with washing or wet-separating equipment** (filling or emptying devices per se [B65G 65/30](#))
- B03B 2011/002 . {Rotary feeding devices}
- B03B 2011/004 . {Lifting wheel dischargers}
- B03B 2011/006 . {Scraper dischargers}
- B03B 2011/008 . {Screw dischargers}
  
- B03B 13/00** **Control arrangements specially adapted for wet-separating apparatus or for dressing plant, using physical effects** (detecting, measuring, or analysing devices [G01](#) ; control devices in general [G05](#))
- B03B 13/005 . {Methods or arrangements for controlling the physical properties of heavy media (in relation with groups [B03B 5/30](#) to [B03B 5/46](#)), e.g. density, concentration, viscosity}
- B03B 13/02 . using optical effects
- B03B 13/04 . using electrical or electromagnetic effects
- B03B 13/06 . using absorption or reflection of radioactive emanation