

**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**

[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. riffling

## 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 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 11/00**                    **Feed or discharge devices integral with washing or wet-separating equipment (filling or emptying devices per se [B65G 65/30](#))**
- 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
- B03B 2005/00**                    **Washing granular, powdered or lumpy materials; Wet separating (separating by pneumatic tables or by pneumatic jigs [B03B 4/00](#))**
- B03B 2005/28                    . by sink-float separation
- B03B 2005/30                    . . using heavy liquids or suspensions
- B03B 2005/36                    . . . Devices therefor, other than using centrifugal force (jigs [B03B 5/10](#))
- B03B 2005/40                    . . . . of trough type
- B03B 2005/405                    . . . . . using horizontal currents

**B03B 2009/00**      **General arrangement of separating plant, e.g. flow sheets**

- B03B 2009/06      . specially adapted for refuse
- [B03B 2009/066](#)      .. the refuse being batteries
- [B03B 2009/067](#)      .. the refuse being carpets
- [B03B 2009/068](#)      .. Specific treatment of shredder light fraction

**B03B 2011/00**      **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