

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. 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 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