

**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	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>using pulses generated by liquid injection</li> </ul> </li> </ul>
B03B 5/24	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Constructional details of jigs, e.g. pulse control devices</li> </ul> </li> </ul>
B03B 5/26	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>in sluices</li> </ul> </li> </ul>
B03B 5/28	<ul style="list-style-type: none"> <li>by sink-float separation</li> </ul>
B03B 5/30	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>using heavy liquids or suspensions</li> </ul> </li> </ul>
B03B 5/32	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>using centrifugal force (<a href="#">centrifuges B04B</a>; <a href="#">cyclones B04C</a>)</li> </ul> </li> </ul>
B03B 5/34	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Applications of hydrocyclones</li> </ul> </li> </ul> </li> </ul>
B03B 5/36	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Devices therefor, other than using centrifugal force (<a href="#">jigs B03B 5/10</a>)</li> </ul> </li> </ul>
B03B 5/38	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>of conical receptacle type</li> </ul> </li> </ul> </li> </ul>
B03B 5/40	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>of trough type</li> </ul> </li> </ul> </li> </ul>
B03B 2005/405	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{<a href="#">using horizontal currents</a>}</li> </ul> </li> </ul> </li> </ul>
B03B 5/42	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>of drum of lifting wheel type</li> </ul> </li> </ul> </li> </ul>
B03B 5/44	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Application of particular media therefor</li> </ul> </li> </ul>
B03B 5/442	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{<a href="#">composition of heavy media</a>}</li> </ul> </li> </ul> </li> </ul>
B03B 5/445	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{<a href="#">composition of dry heavy media</a>}</li> </ul> </li> </ul> </li> </ul> </li> </ul>
B03B 5/447	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{<a href="#">recovery of heavy media</a>}</li> </ul> </li> </ul> </li> </ul> </li> </ul>
B03B 5/46	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>using dry heavy media; Devices therefor</li> </ul> </li> </ul>
B03B 5/48	<ul style="list-style-type: none"> <li>by mechanical classifiers (<a href="#">sink-float separation aspects B03B 5/28</a>)</li> </ul>
B03B 5/50	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Rake classifiers</li> </ul> </li> </ul>
B03B 5/52	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Spiral classifiers</li> </ul> </li> </ul>
B03B 5/54	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Drag classifiers</li> </ul> </li> </ul>
B03B 5/56	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Drum classifiers</li> </ul> </li> </ul>
B03B 5/58	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Bowl classifiers</li> </ul> </li> </ul>
B03B 5/60	<ul style="list-style-type: none"> <li>by non-mechanical classifiers, e.g. slime tanks (<a href="#">using shaken, pulsated or stirred beds as the principal means of separation B03B 5/02</a>; <a href="#">hydraulic classifiers B03B 5/62</a>; <a href="#">water impulse classifiers B03B 5/68</a>)</li> </ul>
B03B 5/62	<ul style="list-style-type: none"> <li>by hydraulic classifiers, e.g. of launder, tank, spiral or helical chute concentrator type</li> </ul>
B03B 5/623	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{<a href="#">Upward current classifiers</a>}</li> </ul> </li> </ul>
B03B 5/626	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>{<a href="#">Helical separators</a>}</li> </ul> </li> </ul>
B03B 5/64	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>of the free settling type</li> </ul> </li> </ul>
B03B 5/66	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>of the hindered settling type</li> </ul> </li> </ul>
B03B 5/68	<ul style="list-style-type: none"> <li>by water impulse (<a href="#">shaking tables B03B 5/04</a>; <a href="#">jigs B03B 5/10</a>; <a href="#">hydraulic classifiers B03B 5/62</a>)</li> </ul>
B03B 5/70	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>on tables or strakes</li> </ul> </li> </ul>
B03B 5/72	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>which are movable</li> </ul> </li> </ul> </li> </ul>
B03B 5/74	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>Revolving tables</li> </ul> </li> </ul> </li> </ul> </li> </ul>
<b>B03B 7/00</b>	<b>Combinations of wet processes or apparatus with other processes or apparatus, e.g. for dressing ores or garbage</b>
<b>B03B 9/00</b>	<b>General arrangement of separating plant, e.g. flow sheets</b>

- 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