

## SECTION B — PERFORMING OPERATIONS; TRANSPORTING

### B03 SEPARATION OF SOLID MATERIALS USING LIQUIDS OR USING PNEUMATIC TABLES OR JIGS; MAGNETIC OR ELECTROSTATIC SEPARATION OF SOLID MATERIALS FROM SOLID MATERIALS OR FLUIDS; SEPARATION BY HIGH-VOLTAGE ELECTRIC FIELDS

**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)

#### Subclass index

PRETREATMENT.....	1/00
WASHING, WET SEPARATING, SEPARATING BY PNEUMATIC JIGS; FEEDING AND DISCHARGING PRODUCTS TREATED THEREBY.....	4/00, 5/00, 11/00
COMBINATIONS OF PROCESSES OR APPARATUS.....	7/00
ARRANGEMENTS OF PLANT.....	9/00
CONTROL BY PHYSICAL EFFECTS.....	13/00

<b>1/00</b>	<b>Conditioning for facilitating separation by altering physical properties of the matter to be treated</b> (pretreatment of ores in general C22B)	5/30	• • using heavy liquids or suspensions [2]
1/02	• Preparatory heating	5/32	• • • using centrifugal force (centrifuges B04B; cyclones B04C) [2]
1/04	• by additives	5/34	• • • • Applications of hydrocyclones [2]
1/06	• by varying ambient atmospheric pressure	5/36	• • • Devices therefor, other than using centrifugal force (jigs B03B 5/10) [2]
<b>4/00</b>	<b>Separating by pneumatic tables or by pneumatic jigs</b> (sink-float separation using dry heavy media B03B 5/46) [2]	5/38	• • • • of conical receptacle type [2]
4/02	• using swinging or shaking tables [6]	5/40	• • • • of trough type [2]
4/04	• using rotary tables or tables formed by travelling belts (separating solids from solids using gas currents and revolving drums B07B 4/06) [6]	5/42	• • • • of drum or lifting wheel type [2]
4/06	• using fixed and inclined tables [6]	5/44	• • • Application of particular media therefor [2]
<b>5/00</b>	<b>Washing granular, powdered or lumpy materials; Wet separating</b> (separating by pneumatic tables or by pneumatic jigs B03B 4/00) [2]	5/46	• • using dry heavy media; Devices therefor [2]
5/02	• using shaken, pulsated or stirred beds as the principal means of separation (B03B 5/28, B03B 5/48 take precedence) [2]	5/48	• by mechanical classifiers (sink-float separation aspects B03B 5/28) [2]
5/04	• • on shaking tables (on vanners B03B 5/08) [2]	5/50	• • Rake classifiers [2]
5/06	• • • Constructional details of shaking tables, e.g. riffling [2]	5/52	• • Spiral classifiers [2]
5/08	• • on vanners [2]	5/54	• • Drag classifiers [2]
5/10	• • on jigs [2]	5/56	• • Drum classifiers [2]
5/12	• • • using pulses generated mechanically in fluid [2]	5/58	• • Bowl classifiers [2]
5/14	• • • • Plunger jigs [2]	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) [2]
5/16	• • • • Diaphragm jigs [2]	5/62	• by hydraulic classifiers, e.g. of launder, tank, spiral or helical chute concentrator type [2]
5/18	• • • • Moving-sieve jigs [2]	5/64	• • of the free settling type [2]
5/20	• • • using pulses generated by air injection [2]	5/66	• • of the hindered settling type [2]
5/22	• • • using pulses generated by liquid injection [2]	5/68	• by water impulse (shaking tables B03B 5/04; jigs B03B 5/10; hydraulic classifiers B03B 5/62) [2]
5/24	• • • Constructional details of jigs, e.g. pulse control devices [2]	5/70	• • on tables or strakes [2]
5/26	• • in sluices [2]	5/72	• • • which are movable [2]
5/28	• by sink-float separation [2]	5/74	• • • • Revolving tables [2]
		<b>7/00</b>	<b>Combinations of wet processes or apparatus with other processes or apparatus, e.g. for dressing ores or garbage</b>

## B03B

### 9/00 General arrangement of separating plant, e.g. flow sheets

- 9/02 • specially adapted for oil-sand, oil-chalk, oil-shales, ozokerite, bitumen, or the like
- 9/04 • specially adapted for furnace residues, smeltings, or foundry slags
- 9/06 • specially adapted for refuse

### 11/00 Feed or discharge devices integral with washing or wet-separating equipment (filling or emptying devices per se B65G 65/30)

### 13/00 Control arrangements specially adapted for wet-separating apparatus or for dressing plant, using physical effects (detecting, measuring, or analysing devices G01)

- 13/02 • using optical effects
- 13/04 • using electrical or electromagnetic effects
- 13/06 • using absorption or reflection of radioactive emanation