SECTION B — PERFORMING OPERATIONS; TRANSPORTING

B04 CENTRIFUGAL APPARATUS OR MACHINES FOR CARRYING-OUT PHYSICAL OR CHEMICAL PROCESSES

B04B CENTRIFUGES (high-speed drum mills B02C 19/11)

Note(s)

This subclass covers machines or apparatus for separating, mixing, drying, extracting, purifying, or like treating in which centrifugal effects are generated by rotary bowls or other rotors. Where such machines or apparatus involve pumping effects, such effects must be incidental or subsidiary to the treating.

Types of centrifuges; Centrifuges characterised by discharging means

1/00 Centrifuges with rotary bowls provided with solid jackets for separating predominantly liquid mixtures with or without solid particles
1/02 • without inserted separating walls
1/04 • with inserted separating walls
1/06 • • of cylindrical shape
1/08 • • of conical shape
1/10 • with discharging outlets in the plane of the maximum diameter of the bowl
1/12 • • with continuous discharge
1/14 • • with periodical discharge
1/16 • • • with discharging outlets controlled by the rotational speed of the bowl
1/18 • • • • controlled by the centrifugal force of an auxiliary liquid
1/20 • discharging solid particles from the bowl by a conveying screw coaxial with the bowl axis and rotating relatively to the bowl

3/00 Centrifuges with rotary bowls in which solid particles or bodies become separated by centrifugal force and simultaneously sifting or filtering
3/02 • discharging solid particles from the bowl by means co-axial with the bowl axis and moving to and fro, i.e. push-type centrifuges
3/04 • discharging solid particles from the bowl by a conveying screw co-axial with the bowl axis and rotating relatively to the bowl
3/06 • discharging solid particles by vibrating the bowl
3/08 • discharging solid particles by bowl walls in the form of endless bands

5/00 Other centrifuges
5/02 • Centrifuges consisting of a plurality of separate bowls rotating round an axis situated between the bowls
5/04 • Radial chamber apparatus for separating predominantly liquid mixtures, e.g. butyrometers
5/06 • Centrifugal counter-current apparatus
5/08 • Centrifuges for separating predominantly gaseous mixtures
5/10 • Centrifuges combined with other apparatus, e.g. electrostatic separators; Sets or systems of several centrifuges (B04B 5/12 takes precedence) **[2]**
5/12 • Centrifuges in which rotors other than bowls generate centrifugal effects in stationary containers

Elements; Accessories

7/00 Elements of centrifuges (drives B04B 9/00; feeding, charging, or discharging accessories or devices B04B 11/00)
7/02 • Casings; Lids
7/04 • • Casings facilitating discharge
7/06 • • Safety devices
7/08 • Rotary bowls
7/10 • • Bowls for shaping solids
7/12 • • Inserts, e.g. armouring plates
7/14 • • • for separating walls of conical shape
7/16 • • • Sieves or filters
7/18 • • formed or coated with sieving or filtering elements

9/00 Drives specially designed for centrifuges; Arrangement or disposition of transmission gearing; Suspending or balancing rotary bowls
9/02 • Electric motor drives
9/04 • • Direct drive
9/06 • Fluid drive
9/08 • Arrangement or disposition of transmission gearing
9/10 • Control of the drive; Speed regulating
9/12 • Suspending rotary bowls
9/14 • Balancing rotary bowls

11/00 Feeding, charging, or discharging bowls (B04B 1/00, B04B 3/00, B04B 7/04 take precedence)
11/02 • Continuous feeding or discharging; Control arrangements therefor
11/04 • Periodical feeding or discharging; Control arrangements therefor
11/05 • • Base discharge
11/06 • Arrangement of distributors or collectors in centrifuges
11/08 • Skimmers or scrapers for discharging

13/00 **Control arrangements specially designed for centrifuges; Programme control of centrifuges**
(control arrangements for feed, charge, or discharge B04B 11/00)

15/00 **Other accessories for centrifuges**

15/02 • for cooling, heating, or heat insulating

15/04 • for suppressing the formation of foam

15/06 • for cleaning bowls, filters, sieves, inserts, or the like

15/08 • for ventilating or producing a vacuum in the centrifuge

15/10 • for forming a filtering layer in the rotary bowl

15/12 • for drying or washing the separated solid particles