

SECTION B — SECTION B - PERFORMING OPERATIONS; TRANSPORTING

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

B04C APPARATUS USING FREE VORTEX FLOW, E.G. CYCLONES (jet mills B02C 19/06; exhaust or silencing apparatus for machines or engines having means for removing solid constituents of exhaust, using inertial or centrifugal separators F01N 3/037; cyclonic type combustion apparatus F23)

Note(s)

This subclass covers apparatus for separating, mixing or like treating in which centrifugal effects are generated by free vortex flow, otherwise than by rotary bowls, rotors or curved passages.

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| <p>1/00 Apparatus in which the main direction of flow follows a flat spiral</p> | <p>5/14 . Construction of the underflow ducting; Apex constructions; Discharge arrangements</p> |
| <p>3/00 Apparatus in which the axial direction of the vortex remains unchanged</p> | <p>5/15 . . with swinging flaps or revolving sluices; Sluices; Check-valves</p> |
| <p>3/02 . with heating or cooling, e.g. quenching, means</p> | <p>5/16 . . with variable-size outlets from the underflow ducting</p> |
| <p>3/04 . Multiple arrangement thereof</p> | <p>5/18 . . with auxiliary fluid assisting discharge</p> |
| <p>3/06 . Construction of inlets or outlets to the vortex chamber</p> | <p>5/181 . . Bulkheads or central bodies in the discharge opening</p> |
| <p>5/00 Apparatus in which the axial direction of the vortex is reversed</p> | <p>5/185 . . Dust collectors</p> |
| <p>5/02 . Construction of inlets by which the vortex flow is generated (fluid dynamics in general F15D)</p> | <p>5/187 . . . forming an integral part of the vortex chamber</p> |
| <p>5/04 . . Tangential inlets</p> | <p>5/20 . with heating or cooling, e.g. quenching, means</p> |
| <p>5/06 . . Axial inlets</p> | <p>5/22 . with cleaning means</p> |
| <p>5/08 . Vortex chamber constructions</p> | <p>5/23 . . using liquids</p> |
| <p>5/081 . . Shapes or dimensions</p> | <p>5/24 . Multiple arrangement thereof</p> |
| <p>5/085 . . with wear-resisting arrangements</p> | <p>5/26 . . for series flow</p> |
| <p>5/087 . . with flexible gas-tight walls</p> | <p>5/28 . . for parallel flow</p> |
| <p>5/10 . . with perforated walls</p> | <p>5/30 . . Recirculation constructions in or with cyclones which accomplish a partial recirculation of the medium, e.g. by means of conduits</p> |
| <p>5/103 . . Bodies or members, e.g. bulkheads, guides, in the vortex chamber (cores B04C 5/107)</p> | <p>7/00 Apparatus not provided for in group B04C 1/00, B04C 3/00 or B04C 5/00; Multiple arrangements not provided for in one of the groups B04C 1/00, B04C 3/00, or B04C 5/00; Combinations of apparatus covered by two or more of the groups B04C 1/00, B04C 3/00, or B04C 5/00</p> |
| <p>5/107 . . Cores; Devices for inducing an air-core in hydrocyclones (forming part of the outlet pipe B04C 5/13)</p> | <p>9/00 Combinations with other devices, e.g. fans (with filters B01D 50/00)</p> |
| <p>5/12 . Construction of the overflow ducting, e.g. diffusing or spiral exits</p> | <p>11/00 Accessories, e.g. safety or control devices, not otherwise provided for (with electrostatic precipitating arrangements B03C 3/14)</p> |
| <p>5/13 . . formed as a vortex finder and extending into the vortex chamber; Discharge from vortex finder otherwise than at the top of the cyclone; Devices for controlling the overflow</p> | |