

**ECLA****EUROPEAN CLASSIFICATION****B08B****CLEANING IN GENERAL; PREVENTION OF FOULING IN GENERAL**

(brushes A46; devices for domestic or like cleaning A47L; [N: cleaning golf-clubs or golf accessories [A63B57/00V](#); cleaning grips of bats on rackets [A63B59/00C](#)]; separation of particles from liquids or gases B01D; separation of solids B03, B07; spraying or applying liquids or other fluent materials to surfaces in general B05; cleaning devices for conveyers [B65G45/10](#); concurrent cleaning, filling and closing of bottles [B67C7/00](#); inhibiting corrosion or incrustation in general C23; cleaning streets, permanent ways, beaches or land E01H; parts, details or accessories of swimming or splash baths or pools, specially adapted for cleaning [E04H4/16](#); preventing or removing electrostatic charges H05F) [C9503]

**[N: Notes**

[C9503]This subclass covers only inventions relating to cleaning which are usually classified according to one (or more) of the aspects mentioned below if they are not fully classifiable in a subclass a subclass providing for any of the following aspects: the articles cleaned, e.g. bed-pans, urinal or other sanitary devices for bed-ridden persons [A61G9/02](#), filters, semi-permeable membranes B01D, castings and moulds [B22D29/00](#), vehicles B60S, coke ovens [C10B43/00](#), building forms E04G, boilers F22, combustion apparatus F23, furnaces F27; the general nature of the cleaning, e.g. preparing for sugar manufacture A23N, domestic cleaning A47L, treatment of textiles D06, laundry D06F, air-conditioning F24F; the particular operation performed, e.g. filtering B01D, separating of solids B03, B07, sand-blasting B24C; the particular apparatus or device, e.g. brushes A46B, mops A47L, centrifuges B04, hand tools B25 [N: devices for cleaning paint-applying hand tools after use [B44D3/00D](#)]; the substance cleaned, e.g. metals B21C, C23, water C02, glass C03B, leather C14B, textile fibres D01; the substance removed (or prevented from depositing or forming) e.g. [N: removing paint [B44D3/00](#), e.g.] implements or apparatus for removing dry paint from surfaces [B44D3/16](#); chemical paint-removers [C09D9/00](#); preventing rust C23F; the substance used, e.g. macromolecular compounds or compositions C08, anti-icing materials C09K, detergents C11D; the operation in connection with which cleaning is done, e.g. metal rolling B21B, metal boring B23B, soldering B23K, textile fabrication D01G, H, D03J, D04B; the surroundings of a surface to be cleaned or kept clean, e.g. water in a boiler C02F, air in a room F24F.  
]

**B08B1/00****Cleaning by methods involving the use of tools, brushes, or analogous members**

([B08B3/12](#), [B08B6/00](#), [N: [B08B7/02](#)], [B08B9/00](#) take precedence) [C9503]

**B08B1/00B**

. [N: characterised by the type of cleaning tool] [N1204]

**B08B1/00B2**

. . [N: Brushes] [N1204]

**B08B1/00B4**

. . [N: Swabs] [N1204]

**B08B1/00B6**

. . [N: Scrapers] [N1204]

**B08B1/00B8**

. . [N: Wipes] [N1204]

**B08B1/00S**

. [N: having means to clean the cleaning members before, during or after use] [N9608]

**B08B1/00T**

. [N: using translating operative members]

**B08B1/02**

. Cleaning travelling work, e.g. a web, articles on a conveyer

- B08B1/04
  - using rotary operative members ([B08B1/02](#) takes precedence)
- B08B3/00**
  - Cleaning by methods involving the use or presence of liquid or steam ([B08B9/00](#) takes precedence) [C9503]**
- B08B3/00F
  - [N: Cleaning involving contact with foam]
- B08B3/00M
  - [N: Cabinets or cupboards specially adapted for cleaning articles by hand]
- B08B3/02
  - Cleaning by the force of jets or sprays
- B08B3/02B
  - . [N: Cleaning travelling work ([B08B3/04B2](#) takes precedence)]
- B08B3/02C
  - . [N: Cleaning by means of spray elements moving over the surface to be cleaned]
- B08B3/02H
  - . [N: Cleaning by making use of hand-held spray guns; Fluid preparations therefor]
- B08B3/02H2
  - . . [N: Spray guns]

[N: **WARNING**  
This group is no longer used for classification. Documents are in the process of being reclassified to subclass [B05B](#)  
]
- B08B3/04
  - Cleaning involving contact with liquid
- B08B3/04B
  - . [N: Cleaning travelling work]
- B08B3/04B2
  - . . [N: the loose articles or bulk material travelling gradually through a drum or other container, e.g. by helix or gravity]
- B08B3/04C
  - . [N: using agitated containers in which the liquid and articles or material are placed([by means of ultrasonic vibrationsB08B3/12](#); [cleaning casks or barrels by agitatingB08B9/12D](#); [mixers with shaking, oscillating or vibrating mechanismsB01F11/00](#))]
- B08B3/04D
  - . [N: using perforated containers, e.g. baskets, or racks immersed and agitated in a liquid bath ([using perforated drums B08B3/06](#))]
- B08B3/04D2
  - . . [N: Containers specially adapted therefor]
- B08B3/04O
  - . [N: Overflow-type cleaning, e.g. tanks in which the liquid flows over the tank in which the articles are placed] [[N1204](#)]
- B08B3/06
  - . using perforated drums in which the article or material is placed [N: ([B08B3/04B2](#) takes precedence)]
- B08B3/08
  - . the liquid having chemical or dissolving effect (substances used, see the relevant classes)
- B08B3/10
  - . with additional treatment of the liquid or of the object being cleaned, e.g. by heat, by electricity, by vibration
- B08B3/10B
  - . . [N: with means for agitating the liquid ([by agitating the container B08B3/04B2](#), [B08B3/04C](#), [B08B3/04D](#), [B08B3/06](#))]
- B08B3/10B2
  - . . . [N: using propellers]
- B08B3/10D
  - . . [N: by boiling the liquid] [[N1204](#)]
- B08B3/10F
  - . . [N: by lowering and raising the level of the cleaning liquid] [[N1204](#)]
- B08B3/12
  - . . by sonic or ultrasonic vibrations (washing or rinsing machines for crockery or tableware using sonic or ultrasonic waves[A47L15/13](#); of natural teeth, of protheses using ultrasonic techniques similar to those used for natural teeth[A61C17/20](#); application of ultrasonic vibrations to chemical, physical, or physico-chemical processes in general[B01J19/10](#))[[C9503](#)]

- B08B3/12B . . . . [N: Cleaning travelling work, e.g. webs, articles on a conveyer (conveyers [B65G](#); handling webs [B65H](#))]
- B08B3/12B2 . . . . . [N: in particular moving bottles] [N9503]
- B08B3/14 . . . Removing waste, e.g. labels, from cleaning liquid; [N: Regenerating cleaning liquids] (treatment of water in general [C02F](#)) [N9503]
  
- B08B5/00** **Cleaning by methods involving the use of air flow or gas flow** ([B08B6/00](#) takes precedence)
  
- B08B5/02 . Cleaning by the force of jets, e.g. blowing-out cavities [N: (airguns or nozzles per se [B05B1/00B](#))]
- B08B5/02B . . [N: Cleaning travelling work] [N1204]
- B08B5/02B2 . . . [N: Cleaning moving webs] [N1204]
  
- B08B5/04 . Cleaning by suction, with or without auxiliary action ([N: [B08B9/03](#) takes precedence;](suction cleaners [A47L](#)))[C9503]
- B08B5/04B . . [N: Cleaning travelling work] [N1204]
- B08B5/04B2 . . . [N: Cleaning moving webs] [N1204]
  
- B08B6/00** **Cleaning by electrostatic means** (domestic cleaning implements functioning electrostatically [A47L13/40](#); cleaning of grooved record carriers [G11B3/58](#))
  
- B08B7/00** **Cleaning by methods not provided for in a single other subclass or a single group in this subclass**
  
- B08B7/00E . [N: by explosions]
- B08B7/00J . [N: by incorporation in a layer which is removed with the contaminants] [N0007]
- B08B7/00L . [N: by liquid gases or supercritical fluids] [N0007]
- B08B7/00P . [N: by adhesive surfaces] [N0007]
  
- B08B7/00S . [N: by radiant energy, e.g. UV, laser, light beam or the like]
- B08B7/00S2 . . [N: by laser] [C0005]
- B08B7/00S4 . . [N: by infrared radiation] [N1204]
- B08B7/00S6 . . [N: by ultraviolet radiation] [N1204]
  
- B08B7/00T . [N: by temperature changes] [N9409]
- B08B7/00T2 . . [N: by heating ([B08B7/00S](#) takes precedence)] [N9409]
- B08B7/00T2B . . . [N: in a fluidized bed] [N1204]
- B08B7/00T2P . . . [N: by pyrolysis] [N1204]
- B08B7/00T4 . . [N: by cooling] [N9409]
  
- B08B7/02 . by distortion, beating, or vibration of the surface to be cleaned [N: ([B08B7/00E](#) takes precedence)]
- B08B7/02B . . [N: Needle scalers]

- B08B7/02C . . [N: Rotary scalers]
- B08B7/02S . . [N: Using sound waves] [N1204]
- B08B7/02S2 . . . [N: Using ultrasounds] [N1204]
- B08B7/04 . by a combination of operations

**B08B9/00** **Cleaning hollow articles by methods or apparatus specially adapted thereto**  
([B08B3/12](#), [B08B6/00](#) take precedence)

- B08B9/02 . Cleaning pipes or tubes or systems of pipes or tubes ([apparatus for cleaning metal pipes by chemical methods C23G3/04](#); [N: removing obstructions in waste pipes or sinks [E03C1/30](#); cleaning sewer pipes [E03F 9/00](#); cleaning boreholes or wells [E21B37/00](#); cleaning furnace tubes, flues, chimneys [F23J3/02](#); cleaning heat-transfer conduits, e.g. water tubes of boilers [F28G](#)])
  - B08B9/02F . . [N: Cleaning pipe ends or pipe fittings, e.g. before soldering ([grinding tube ends B24B9/00D](#))]
  - B08B9/023 . . Cleaning the external surface ([B08B9/02F](#) takes precedence) [N0809]
  - B08B9/027 . . Cleaning the internal surfaces; Removal of blockages [N0809]
  - B08B9/032 . . . by the mechanical action of a moving fluid, e.g. by flushing ([B08B9/04](#) takes precedence; [N: by fluid jets mounted on cleaning devices [B08B9/043J](#)]) [N0809]
  - B08B9/032B . . . . [N: using pressurised, pulsating or purging fluid ([E04F17/12B](#) takes precedence)] [N0809]
  - B08B9/032B2 . . . . . [N: in combination with a plug, e.g. inflatable mole, to isolate a part of the tube ([plugging pigs for stopping flow in pipes F16L55/128B](#))] [N0809]
  - B08B9/032B4 . . . . . [N: Arrangements specially designed for simultaneous and parallel cleaning of a plurality of conduits] [N0809]
  - B08B9/032B6 . . . . . [N: Control mechanisms therefor] [N0809]
  - B08B9/032B8 . . . . . [N: Using pulsations] [N1204]
  - B08B9/032B10 . . . . . [N: the fluid being in the form of a mist] [N1204]
  - B08B9/032B12 . . . . . [N: by purging the pipe with a gas or a mixture of gas and liquid] [N1204]
  - B08B9/035 . . . . by suction [N0809]
  - B08B9/04 . . . using cleaning devices introduced into and moved along the pipes [C0809]
- [N: **WARNING**  
Group [B08B9/04](#) and subgroups are not complete. See also [B08B9/02](#) and subgroups [C0810]  
]
- B08B9/043 . . . . moved by externally powered mechanical linkage, e.g. pushed or drawn through the pipes [N0809]
  - B08B9/043J . . . . . [N: provided exclusively with fluid jets as cleaning tools] [N0809]
  - B08B9/043M . . . . . [N: provided with mechanical cleaning tools, e.g. scrapers, with or without additional fluid jets ([B08B9/045](#), [B08B9/047](#) take precedence)] [N0809]
  - B08B9/045 . . . . . the cleaning devices being rotated while moved [N: , e.g. flexible rotating shaft or "snake"] ([B08B9/047](#) takes precedence) [N0809]
  - B08B9/047 . . . . . the cleaning devices having [N: internal] motors [e.g. turbines] for powering cleaning tools [N0809]
  - B08B9/049 . . . . having self-contained propelling means for moving the cleaning devices along the pipes [N: i.e. self-propelled] [N0809]

B08B9/049H	. . . . .	[N: Heavy-type cleaning devices, e.g. crawlers with plural cleaning members ( <a href="#">B08B9/051</a> takes precedence)] [N0809]
B08B9/049N	. . . . .	[N: Nozzles propelled by fluid jets] [N0809]
B08B9/049N2	. . . . .	[N: provided with additional mechanical cleaning tools] [N0809]
B08B9/051	. . . . .	the cleaning devices having [N: internal] motors [e.g. turbines] for powering cleaning tools [N0809]
B08B9/053	. . . . .	moved along the pipes by a fluid, e.g. by fluid pressure or by suction [N0809]
B08B9/053B	. . . . .	[N: the cleaning device being restricted in its movement by a cable or the like] [N1204]
B08B9/055	. . . . .	the cleaning devices conforming to, or being conformable to, substantially the same cross-section of the pipes, [N: e.g. pigs or moles (pigs or moles per se <a href="#">F16L55/26</a> ; their launching and detection <a href="#">F16L55/46</a> ; separating pigs in pipelines <a href="#">F17D3/00</a> )] [N0809]
B08B9/055C	. . . . .	[N: Control mechanisms therefor] [N0809]
B08B9/055E	. . . . .	[N: Spherically shaped pigs] [N0809]
B08B9/055G	. . . . .	[N: Cylindrically shaped pigs] [N0809]
B08B9/055H	. . . . .	[N: Diablo shaped pigs] [N0809]
B08B9/055K	. . . . .	[N: Gelled or degradable pigs] [N0809]
B08B9/055K2	. . . . .	{7 dots} [N: at least partially formed of a frozen liquid or gas] [N1204]
B08B9/055L	. . . . .	[N: Pigs with rings shaped cleaning members, e.g. cup shaped pigs] [N0809]
B08B9/055M	. . . . .	[N: with additional jet means] [N1204]
B08B9/057	. . . . .	the cleaning devices being entrained discrete elements, e.g. balls, grinding elements, brushes [N0809]
B08B9/08	. . . . .	Cleaning containers, e.g. tanks
B08B9/08D	. . . . .	[N: Cleaning containers having tubular shape, e.g. casks, barrels, drums ( <a href="#">B08B9/20</a> take precedence)] [N9503]
B08B9/08D2	. . . . .	[N: by methods involving the use of tools, e.g. by brushes, scrapers] [N9503]
B08B9/08D4	. . . . .	[N: by the force of jets or sprays] [N9503]
B08B9/08D6	. . . . .	[N: by agitating or tumbling containers filled with liquid or liquid and abrasive, e.g. chain] [N9503]
B08B9/08H	. . . . .	[N: Handling or manipulating containers, e.g. moving or rotating containers in cleaning devices, conveying to or from cleaning devices ( <a href="#">B08B9/20</a> takes precedence)] [N9503]
B08B9/08H2	. . . . .	[N: the containers being brought to the cleaning device] [N9503]
B08B9/08L	. . . . .	[N: Removing scrap from containers, e.g. removing labels] [N9503]
B08B9/08L2	. . . . .	[N: Removing remnants of closures from bottle necks] [N9503]
B08B9/08M	. . . . .	[N: Cleaning milk churns ( <a href="#">B08B9/08D</a> , <a href="#">B08B9/20</a> take precedence)] [N9503]
B08B9/08M2	. . . . .	[N: for large numbers of milk churns] [N9503]
B08B9/08M4	. . . . .	[N: Devices for inverting or emptying milk churns, applying or unseating covers] [N9503]
B08B9/08R	. . . . .	[N: Drainage racks (see also <a href="#">A47J47/20</a> )]
B08B9/08W	. . . . .	[N: Cleaning of water-treatment installations]
B08B9/08Y	. . . . .	[N: Cleaning crates, boxes or the like ( <a href="#">B08B9/08L</a> takes precedence)]
B08B9/08Z	. . . . .	[N: by burning-out ( <a href="#">B08B9/40</a> takes precedence)] [N9503]

- B08B9/087 . . by methods involving the use of tools, e.g. brushes, scrapers ([N: [B08B9/08D2](#)], [B08B9/20](#) take precedence) [N9503]
- B08B9/093 . . by the force of jets or sprays ([N: [B08B9/08D4](#)], [B08B9/20](#) take precedence) [N9503]
- B08B9/093B . . . [N: Removing sludge or the like from tank bottoms] [N9503]
- B08B9/093R . . . [N: using rotating jets] [N9503]
- B08B9/20 . . by using apparatus into or on to which containers e.g. bottles, jars, cans are brought [N: ([washing or rinsing crockery or tableware A47L15/00](#))] [N9503]
- B08B9/20H . . . [N: Conveying containers to or from the cleaning machines] [N9503]
- B08B9/22 . . . the apparatus cleaning by soaking alone [N9503]
- B08B9/24 . . . . and having conveyers [N9503]
- B08B9/26 . . . . . Rotating conveyers [N9503]
- B08B9/28 . . . the apparatus cleaning by splash, spray, or jet application, with or without soaking [N9503]
- B08B9/28B . . . . [N: by gas jets] [N1204]
- B08B9/28B2 . . . . . [N: the gas being ionized] [N1204]
- B08B9/30 . . . . and having conveyers [N9503]
- B08B9/32 . . . . . Rotating conveyers [N9503]
- B08B9/34 . . . . Arrangements of conduits or nozzles [N9503]
- B08B9/36 . . . the apparatus cleaning by using brushes [N9503]
- B08B9/38 . . . the apparatus cleaning by using scrapers, chains, grains of shot, sand or other abrasive means ([abrasive blasting in general B24C](#)) [N9503]
- B08B9/40 . . . the apparatus cleaning by burning out [N9503]
- B08B9/42 . . . the apparatus being characterised by means for conveying or carrying containers therethrough [N9503]
- B08B9/42B . . . . [N: Holders for bottles, cell construction] [N9503]
- B08B9/42G . . . . [N: Grippers for bottles] [N9503]
- B08B9/44 . . . . the means being for loading or unloading the apparatus [N9503]
- B08B9/46 . . Inspecting cleaned containers for cleanliness [N9503]
  
- B08B11/00** **Cleaning flexible or delicate articles by methods or apparatus specially adapted thereto** ([B08B3/12](#), [B08B6/00](#) take precedence)
- B08B11/02 . Devices for holding articles during cleaning [N: ([B08B9/42](#) takes precedence)] [C9503]
- B08B11/04 . specially adapted for plate glass, e.g. prior to manufacture of windshields ([cleaning the gap between permanently secured panes E06B3/677](#)) [C9503]
  
- B08B13/00** **Accessories or details of general applicability for machines or apparatus for cleaning**
  
- B08B15/00** **Preventing escape of dirt or fumes from the area where they are produced; Collecting or removing dirt or fumes from that area** ([parts, details or accessories of cooking-vessels for withdrawing or condensing cooking vapours from such vessels A47J36/38](#); [refuse disposal B65F](#); [devices for conducting smoke or fumes, e.g. flues, F23J11/00](#); [removing cooking fumes from domestic stoves or ranges F24C15/20](#); [air conditioning, ventilation F24F](#)) [C9503]



- B08B15/00C . [N: using a central suction system, e.g. for collecting exhaust gases in workshops (removing dust from textile machines [D01H11/00](#); ventilation of mines, galleries or tunnels, e.g. traffic tunnels, [E21F1/00](#))] [C9608]
- B08B15/00C2 . . [N: comprising a stationary main duct with one or more branch units, the branch units being freely movable along a sealed longitudinal slit in the main duct]
- B08B15/00D . [N: Fume suction nozzles arranged on a closed or semi-closed surface, e.g. on a circular, ring-shaped or rectangular surface adjacent the area where fumes are produced ([B08B15/04](#) takes precedence)] [N9608]
- B08B15/02 . using chambers or hoods covering the area [N: ([B08B15/00C](#) takes precedence)]
- B08B15/02B . . [N: Fume cabinets or cupboards, e.g. for laboratories]
- B08B15/02G . . [N: Boxes for removal of dirt, e.g. for cleaning brakes, glove- boxes]
- B08B15/04 . from a small area, e.g. a tool [N: (removing chips [B23Q11/00F](#))] [C9503]
- B08B17/00** **Methods preventing fouling** [N: (preventing accumulation of deposits in pneumatic conveyers [B65G53/52B](#))]
- B08B17/02 . Preventing deposition of fouling or of dust
- B08B17/02B . . [N: Prevention of fouling with liquids by means of devices for containing or collecting said liquids] [N1204]
- B08B17/04 . . by using removable coverings
- B08B17/06 . . by giving articles subject to fouling a special shape or arrangement
- B08B17/06B . . . [N: the surface having a microscopic surface pattern to achieve the same effect as a lotus flower] [N1204]