

**B08 CLEANING**

**B08B CLEANING IN GENERAL; PREVENTION OF FOULING IN GENERAL** (brushes A46; devices for domestic or like cleaning A47L; 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 B65G 45/10; concurrent cleaning, filling and closing of bottles B67C 7/00; 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 E04H 4/16; preventing or removing electrostatic charges H05F)

- (1) This subclass covers only cleaning, which is usually classified according to one (or more) of the aspects mentioned below, if it is not fully classifiable in 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 A61G 9/02, filters, semi-permeable membranes B01D, castings and moulds B22D 29/00, vehicles B60S, coke ovens C10B 43/00, building forms E04G, boilers F22, combustion apparatus F23J, 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;
  - 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. implements or apparatus for removing dry paint from surfaces B44D 3/16, chemical paint-removers C09D 9/00, 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, D01H, 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.
- (2) Processes using enzymes or micro-organisms in order to:
- (i) liberate, separate or purify a pre-existing compound or composition, or to
  - (ii) treat textiles or clean solid surfaces of materials
- are further classified in subclass C12S. [5]

**Subclass index**

|                                                     |                              |                                                     |              |
|-----------------------------------------------------|------------------------------|-----------------------------------------------------|--------------|
| CLEANING CHARACTERISED BY THE MEANS USED .....      | 1/00, 3/00, 5/00, 6/00, 7/00 | ACCESSORIES OR DETAILS OF MACHINES.....             | 13/00        |
| CLEANING HOLLOW, FLEXIBLE OR DELICATE ARTICLES..... | 9/00, 11/00                  | PREVENTING FOULING OR ESCAPE OF DIRT OR FUMES ..... | 15/00, 17/00 |

|             |                                                                                                                                            |             |       |                                                                                                                                                                                                                                                                                                                                                                             |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1/00</b> | <b>Cleaning by methods involving the use of tools, brushes, or analogous members</b> (B08B 3/12, B08B 6/00, B08B 9/00 take precedence) [2] | 3/12        | . . . | by sonic or ultrasonic vibrations (washing or rinsing machines for crockery or tableware using sonic or ultrasonic waves A47L 15/13; of natural teeth, of prostheses using ultrasonic techniques similar to those used for natural teeth A61C 17/20; application of ultrasonic vibrations to chemical, physical, or physico-chemical processes in general B01J 19/10) [2,5] |
| 1/02        | . Cleaning travelling work, e.g. a web, articles on a conveyer                                                                             |             |       |                                                                                                                                                                                                                                                                                                                                                                             |
| 1/04        | . using rotary operative members (B08B 1/02 takes precedence)                                                                              |             |       |                                                                                                                                                                                                                                                                                                                                                                             |
| <b>3/00</b> | <b>Cleaning by methods involving the use or presence of liquid or steam</b> (B08B 9/00 takes precedence)                                   | 3/14        | . . . | Removing waste, e.g. labels, from cleaning liquid (treatment of water in general C02F) [5]                                                                                                                                                                                                                                                                                  |
| 3/02        | . Cleaning by the force of jets or sprays                                                                                                  |             |       |                                                                                                                                                                                                                                                                                                                                                                             |
| 3/04        | . Cleaning involving contact with liquid                                                                                                   | <b>5/00</b> |       | <b>Cleaning by methods involving the use of air flow or gas flow</b> (B08B 6/00, B08B 9/00 take precedence) [2,7]                                                                                                                                                                                                                                                           |
| 3/06        | . . using perforated drums in which the article or material is placed                                                                      | 5/02        | . . . | Cleaning by the force of jets, e.g. blowing-out cavities                                                                                                                                                                                                                                                                                                                    |
| 3/08        | . . the liquid having chemical or dissolving effect (substances used, <u>see</u> the relevant classes)                                     | <b>5/04</b> | . . . | Cleaning by suction, with or without auxiliary action (suction cleaners A47L)                                                                                                                                                                                                                                                                                               |
| 3/10        | . . with additional treatment of the liquid or of the object being cleaned, e.g. by heat, by electricity, by vibration                     | <b>6/00</b> |       | <b>Cleaning by electrostatic means</b> (domestic cleaning implements functioning electrostatically A47L 13/40; cleaning of grooved record carriers G11B 3/58) [2]                                                                                                                                                                                                           |
|             |                                                                                                                                            | <b>7/00</b> |       | <b>Cleaning by methods not provided for in a single other subclass or a single group in this subclass</b>                                                                                                                                                                                                                                                                   |
|             |                                                                                                                                            | 7/02        | . . . | by distortion, beating, or vibration of the surface to be cleaned                                                                                                                                                                                                                                                                                                           |
|             |                                                                                                                                            | 7/04        | . . . | by a combination of operations                                                                                                                                                                                                                                                                                                                                              |

- 9/00 Cleaning hollow articles by methods or apparatus specially adapted thereto** (B08B 3/12, B08B 6/00 take precedence) [2]
- 9/02 . . . . Cleaning pipes or tubes or systems of pipes or tubes (apparatus for cleaning metal pipes by chemical methods C23G 3/04) [5]
- 9/023 . . . . Cleaning the external surfaces [7]
- 9/027 . . . . Cleaning the internal surfaces; Removal of blockages [7]
- 9/032 . . . . by the mechanical action of a moving fluid, e.g. by flushing (B08B 9/04 takes precedence) [7]
- 9/035 . . . . . by suction [7]
- 9/04 . . . . using cleaning devices introduced into and moved along the pipes [1,7]
- 9/043 . . . . . moved by externally powered mechanical linkage, e.g. pushed or drawn through the pipes [7]
- 9/045 . . . . . the cleaning devices being rotated while moved (B08B 9/047 takes precedence) [7]
- 9/047 . . . . . the cleaning devices having motors for powering cleaning tools [7]
- 9/049 . . . . . having self-contained propelling means for moving the cleaning devices along the pipes [7]
- 9/051 . . . . . the cleaning devices having motors for powering cleaning tools [7]
- 9/053 . . . . . moved along the pipes by a fluid, e.g. by fluid pressure or by suction [7]
- 9/055 . . . . . the cleaning devices conforming to, or being conformable to, substantially the cross-section of the pipes, e.g. pigs or moles [7]
- 9/057 . . . . . the cleaning devices being entrained discrete elements, e.g. balls, grinding elements, brushes [7]
- 9/08 . . . . Cleaning of containers, e.g. tanks
- 9/087 . . . . by methods involving the use of tools, e.g. brushes, scrapers (B08B 9/20 takes precedence) [5]
- 9/093 . . . . by the force of jets or sprays (B08B 9/20 takes precedence) [5]
- 9/20 . . . . by using apparatus into or on to which containers, e.g. bottles, jars, cans, are brought [5]
- 9/22 . . . . the apparatus cleaning by soaking alone [5]
- 9/24 . . . . . and having conveyers [5]
- 9/26 . . . . . Rotating conveyers [5]
- 9/28 . . . . the apparatus cleaning by splash, spray or jet application, with or without soaking [5]
- 9/30 . . . . . and having conveyers [5]
- 9/32 . . . . . Rotating conveyers [5]
- 9/34 . . . . . Arrangement of conduits or nozzles [5]
- 9/36 . . . . the apparatus cleaning by using brushes [5]
- 9/38 . . . . the apparatus cleaning by using scrapers, chains, grains of shot, sand or other abrasive means (abrasive blasting in general B24C) [5]
- 9/40 . . . . the apparatus cleaning by burning out [5]
- 9/42 . . . . the apparatus being characterised by means for conveying or carrying containers therethrough [5]
- 9/44 . . . . . the means being for loading or unloading the apparatus [5]
- 9/46 . . . . Inspecting cleaned containers for cleanliness [5]
- 11/00 Cleaning flexible or delicate articles by methods or apparatus specially adapted thereto** (B08B 3/12, B08B 6/00 take precedence) [2]
- 11/02 . . . . Devices for holding articles during cleaning
- 11/04 . . . . specially adapted for plate glass, e.g. prior to manufacture of windshields (cleaning the gap between permanently secured panes E06B 3/677)
- 13/00 Accessories or details of general applicability for machines or apparatus for cleaning**
- 15/00 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 A47J 36/38; refuse disposal B65F; devices for conducting smoke or fumes, e.g. flues, F23J 11/00; removing cooking fumes from domestic stoves or ranges F24C 15/20; air-conditioning, ventilation F24F) [5]
- 15/02 . . . . using chambers or hoods covering the area
- 15/04 . . . . from a small area, e.g. a tool
- 17/00 Methods preventing fouling**
- 17/02 . . . . Preventing deposition of fouling or of dust
- 17/04 . . . . by using removable coverings
- 17/06 . . . . by giving articles subject to fouling a special shape for arrangement