# SECTION B — PERFORMING OPERATIONS; TRANSPORTING

### 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 conveyors 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)

#### Note(s)

This subclass <u>covers</u> 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 C03C, 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.

#### Subclass index

3Y THE MEANS USED
E OR DELICATE ARTICLES
MACHINES
CAPE OF DIRT OR FUMES
MACHINES

1/00 1/02 1/04	<ul> <li>Cleaning by methods involving the use of tools, brushes, or analogous members (B08B 3/12, B08B 6/00, B08B 9/00 take precedence) [2]</li> <li>Cleaning travelling work, e.g. a web or articles on a conveyor</li> <li>using rotary operative members (B08B 1/02 takes precedence)</li> </ul>	3/12	<ul> <li>• 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</li> </ul>
3/00	Cleaning by methods involving the use or presence of liquid or steam (B08B 9/00 takes precedence)	3/14	B01J 19/10) <b>[2, 5]</b> • • • Removing waste, e.g. labels, from cleaning
3/02	Cleaning by the force of jets or sprays		liquid (treatment of water in general C02F) [5]
3/04 3/06 3/08	<ul> <li>Cleaning involving contact with liquid</li> <li>using perforated drums in which the article or material is placed</li> <li>the liquid having chemical or dissolving effect</li> </ul>	<b>5/00</b> 5/02	Cleaning by methods involving the use of air flow or gas flow (B08B 6/00, B08B 9/00 take precedence) [2, 7] • Cleaning by the force of jets, e.g. blowing-out
3/10	<ul> <li>(substances used, <u>see</u> the relevant classes)</li> <li>with additional treatment of the liquid or of the object being cleaned, e.g. by heat, by electricity, by vibration</li> </ul>	5/04	<ul><li>cavities</li><li>Cleaning by suction, with or without auxiliary action (suction cleaners A47L)</li></ul>
		6/00	<b>Cleaning by electrostatic means</b> (domestic cleaning implements functioning electrostatically A47L 13/40; cleaning of grooved record carriers G11B 3/58) <b>[2]</b>

## B08B

7/00	Cleaning by methods not provided for in a single other subclass or a single group in this subclass				
7/02	• by distortion, beating, or vibration of the surface to				
7/04	<ul><li>be cleaned</li><li>by a combination of operations</li></ul>				
9/00	<b>Cleaning hollow articles by methods or apparatus</b> <b>specially adapted thereto</b> (B08B 3/12, B08B 6/00 take precedence) <b>[2]</b>				
9/02	<ul> <li>Cleaning pipes or tubes or systems of pipes or tubes (apparatus for cleaning metal pipes by chemical methods C23G 3/04) [5]</li> </ul>				
9/023	• • Cleaning the external surfaces <b>[7]</b>				
9/027	<ul> <li>Cleaning the internal surfaces; Removal of blockages [7]</li> </ul>				
9/032	• • • by the mechanical action of a moving fluid, e.g. by flushing (B08B 9/04 takes precedence) [7]				
9/035	• • • by suction <b>[7]</b>				
9/04	<ul> <li>• using cleaning devices introduced into and moved along the pipes [1, 7]</li> </ul>				
9/043	<ul> <li>moved by externally powered mechanical linkage, e.g. pushed or drawn through the pipes [7]</li> </ul>				
9/045	<ul> <li>• • • • the cleaning devices being rotated while moved (B08B 9/047 takes precedence) [7]</li> </ul>				
9/047	• • • • • the cleaning devices having motors for powering cleaning tools <b>[7]</b>				
9/049	<ul> <li>having self-contained propelling means for moving the cleaning devices along the pipes [7]</li> </ul>				
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 <b>[7]</b>				
9/055	<ul> <li>• • • • the cleaning devices conforming to, or being conformable to, substantially the cross-section of the pipes, e.g. pigs or moles [7]</li> </ul>				
9/057	••••• the cleaning devices being entrained discrete elements, e.g. balls, grinding elements, brushes <b>[7]</b>				
9/08	Cleaning of containers, e.g. tanks				
9/087	<ul> <li>by methods involving the use of tools, e.g. brushes, scrapers (B08B 9/20 takes precedence) [5]</li> </ul>				
9/093	<ul> <li>by the force of jets or sprays (B08B 9/20 takes precedence) [5]</li> </ul>				

9/20	• by using apparatus into or on to which containers,			
0/22	<ul><li>e.g. bottles, jars, cans, are brought [5]</li><li>the apparatus cleaning by soaking alone [5]</li></ul>			
9/22	• • • • and having conveyors [5]			
9/24 9/26				
	• • • • Rotating conveyors <b>[5]</b>			
9/28	<ul> <li>the apparatus cleaning by splash, spray or jet application, with or without soaking [5]</li> </ul>			
9/30	• • • • and having conveyors [5]			
9/32	• • • • • Rotating conveyors [5]			
9/34	• • • • Arrangement of conduits or nozzles [5]			
9/36	• • • the apparatus cleaning by using brushes [5]			
9/38	<ul> <li>the apparatus cleaning by using scrapers, chains, grains of shot, sand or other abrasive means (abrasive blasting in general B24C) [5]</li> </ul>			
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]			
<b>11/00</b> 11/02 11/04	<ul> <li>Cleaning flexible or delicate articles by methods or apparatus specially adapted thereto (B08B 3/12, B08B 6/00 take precedence) [2]</li> <li>Devices for holding articles during cleaning</li> <li>specially adapted for plate glass, e.g. prior to manufacture of windshields (cleaning the gap between permanently secured panes E06B 3/677)</li> </ul>			
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	<ul> <li>using chambers or hoods covering the area</li> </ul>			
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	<ul> <li>by using removable coverings</li> </ul>			
17/06	<ul> <li>by giving articles subject to fouling a special</li> </ul>			
	shape for arrangement			