SECTION E — FIXED CONSTRUCTIONS

E03 WATER SUPPLY; SEWERAGE

E03B INSTALLATIONS OR METHODS FOR OBTAINING, COLLECTING, OR DISTRIBUTING WATER (drilling wells, obtaining fluids in general from wells E21B; pipe-line systems in general F17D)

Subclass index

LAYOUT.....1/00, 5/00
METHODS.....1/00, 3/00, 9/00
INSTALLATIONS.....3/00, 5/00, 9/00
PIPE SYSTEMS; TANKS.....7/00, 11/00

1/00 Methods or layout of installations for water supply (E03B 3/00, E03B 9/00 take precedence) **[1, 4, 2006.01]**

1/02 • for public or like main supply **[1, 2006.01]**

1/04 • for domestic or like local supply **[1, 2006.01]**

3/00 Methods or installations for obtaining or collecting drinking water or tap water (treatment of water C02F) **[1, 4, 2006.01]**

3/02 • from rain-water **[1, 2006.01]**

3/03 • • Special vessels for collecting or storing rain-water for use in the household, e.g. water-butts **[1, 2006.01]**

3/04 • from surface water **[1, 2006.01]**

3/06 • from underground **[1, 2006.01]**

3/08 • • Obtaining and confining water by means of wells (applicable to a combination of water and other liquids or to other liquids only E21B 43/00) **[1, 2006.01]**

3/10 • • • by means of pit wells **[1, 2006.01]**

3/11 • • • • in combination with tubes, e.g. perforated, extending horizontally, or upwardly inclined, exterior to the pits **[1, 2006.01]**

3/12 • • • by means of vertical pipe wells **[1, 2006.01]**

3/14 • • • by means of horizontal or oblique wells **[1, 2006.01]**

3/15 • • • Keeping wells in good condition, e.g. by cleaning, repairing, regenerating; Maintaining or enlarging the capacity of wells or water-bearing layers (with artificial enrichment E03B 3/32) **[1, 2006.01]**

3/16 • • • Component parts of wells **[1, 2006.01]**

3/18 • • • • Well filters (filters in general B01D 24/00-B01D 35/00) **[1, 2006.01]**

3/20 • • • • • of elements of special shape **[1, 2006.01]**

3/22 • • • • • • Selection of specified materials **[1, 2006.01]**

3/24 • • • • • formed of loose materials, e.g. gravel **[1, 2006.01]**

3/26 • • • • • • with packed filtering material **[1, 2006.01]**

3/28 • from humid air (condensing of vapours in general B01D 5/00; dehumidification of air for air-conditioning F24F 3/14) **[1, 2006.01]**

3/30 • from snow or ice **[1, 4, 2006.01]**

3/32 • with artificial enrichment, e.g. by adding water from a pond or a river **[1, 2006.01]**

3/34 • • of underground water **[1, 2006.01]**

3/36 • • of surface water **[1, 2006.01]**

3/38 • Curbs for springs **[1, 2006.01]**

3/40 • Other devices for confining, e.g. trenches, drainage **[1, 2006.01]**

5/00 Use of pumping plants or installations; Layouts thereof (pumps, pumping plants or installations per se, F04) **[1, 2006.01]**

5/02 • arranged in buildings **[1, 2006.01]**

5/04 • arranged in wells **[1, 2006.01]**

5/06 • • Special equipment **[1, 2006.01]**

7/00 Water main or service pipe systems (pipes or tubes in general F16L) **[1, 2006.01]**

7/02 • Public or like main pipe systems **[1, 2006.01]**

7/04 • Domestic or like local pipe systems (domestic plumbing E03C 1/02) **[1, 2006.01]**

7/07 • Arrangement of devices, e.g. filters, flow controls, measuring devices, siphons, valves, in the pipe systems (devices per se, see the relevant classes for these devices) **[1, 2006.01]**

7/08 • • Arrangement of draining devices (draining devices in general F16K, F16L) **[1, 2006.01]**

7/09 • Component parts or accessories (tools for cleaning pipes B08B 9/02; devices for preventing contamination of drinking water pipes for domestic use E03C 1/10; devices for preventing damage in case of bursts of pipes F16L; heating of pipes in general F16L 53/00) **[1, 2006.01]**

7/10 • • Devices preventing bursting of pipes by freezing (devices preventing bursting of pipes in general F16L 55/00) **[1, 2006.01]**

7/12 • • • by preventing freezing **[1, 2006.01]**

7/14 • • Devices for thawing frozen pipes **[1, 2006.01]**

9/00 Methods or installations for drawing-off water (domestic water-drawing devices E03C; taps or valves per se F16K) **[1, 4, 2006.01]**

9/02 • Hydrants; Arrangement of valves therein; Keys for hydrants **[1, 2006.01]**

9/04 • • Column hydrants **[1, 2006.01]**

9/06 • • • Covers **[1, 2006.01]**
9/08 • • Underground hydrants **[1, 2006.01]**
9/10 • • • Protective plates or covers **[1, 2006.01]**
9/12 • • • Stand-pipes **[1, 2006.01]**
9/14 • • Draining devices for hydrants **[1, 2006.01]**
9/16 • • Devices for retaining foreign matter, e.g. sand **[1, 2006.01]**
9/18 • • Cleaning tools for hydrants **[1, 2006.01]**
9/20 • • Pillar fountains or like apparatus for dispensing drinking water **[1, 2006.01]**

11/00 Arrangements or adaptations of tanks for water supply (water-butts E03B 3/03; storage aspects B65D, B65G, F17B, F17C; foundations E02D 27/38; construction or assembling of bulk storage containers employing civil engineering techniques E04H 7/00; tower aspects E04H 12/00) **[1, 2006.01]**
11/02 • for domestic or like local water supply **[1, 2006.01]**
11/04 • • without air regulator **[1, 2006.01]**
11/06 • • with air regulator **[1, 2006.01]**
11/08 • • • Air regulators **[1, 2006.01]**
11/10 • for public or like main water supply **[1, 2006.01]**
11/12 • • of high-level tanks **[1, 2006.01]**
11/14 • • of underground tanks **[1, 2006.01]**
11/16 • • Adaptations of devices for putting pumping plants in and out of operation, e.g. automatic control devices **[1, 2006.01]**

E03C DOMESTIC PLUMBING INSTALLATIONS FOR FRESH WATER OR WASTE WATER (not connected to either water-supply main or to waste pipe A47K; devices of the kind used in the ground E03B, E03F)**; SINKS**

1/00 Domestic plumbing installations for fresh water or waste water; Sinks [1, 2006.01]
1/01 • for combinations of baths, showers, sinks, wash-basins, closets, urinals, or the like **[1, 2006.01]**
1/02 • Plumbing installations for fresh water **[1, 2006.01]**
1/04 • • Water-basin installations specially adapted to wash-basins or baths (valves, faucets, mixing valves, taps F16K) **[1, 2006.01]**
1/042 • • • Arrangements on taps for wash-basins or baths for connecting to the wall **[1, 2006.01]**
1/044 • • • having a heating or cooling apparatus in the supply line (water heaters, e.g. with continuous flow, F24H) **[1, 2006.01]**
1/046 • • • Adding soap, disinfectant, or the like, in the supply line (preventing contamination of drinking-water pipes E03C 1/10) **[1, 2006.01]**
1/048 • • • supplying water through two or more openings around or along one side of the water-basin **[1, 2006.01]**
1/05 • • Arrangements of devices on wash-basins, baths, sinks, or the like, for remote control of taps (remote control of taps or the like, per se F16K) **[1, 2006.01]**
1/06 • • Devices for suspending or supporting the supply pipe or supply hose of a shower-bath **[1, 2006.01]**
1/08 • • Jet regulators, e.g. anti-splash devices **[1, 2006.01]**
1/084 • • • Jet regulators with aerating means **[1, 2006.01]**
1/086 • • • Jet regulators or jet guides, easily mountable on the outlet of taps **[1, 2006.01]**
1/10 • • Devices for preventing contamination of drinking-water pipes, e.g. means for aerating self-closing flushing valves (vacuum-breakers in general F16K, F16L) **[1, 2006.01]**
1/12 • Plumbing installations for waste water; Basins or fountains connected thereto (drainage devices in floors E03F 5/04); Sinks **[1, 2006.01]**
1/122 • • Pipe-line systems for waste water in buildings (pipe-line systems in general F17D) **[1, 2006.01]**
1/126 • • Installations for disinfecting or deodorising waste-water plumbing installations **[1, 2006.01]**
1/14 • • Wash-basins connected to the waste pipe **[1, 2006.01]**
1/16 • • Wash-fountains connected to the waste pipe **[1, 2006.01]**
1/18 • • Sinks, whether or not connected to the waste-pipe **[1, 2006.01]**
1/181 • • • Anti-splash devices in sinks, e.g. splash guards (jet regulators E03C 1/08) **[1, 2006.01, 2019.01]**
1/182 • • • connected to the waste pipe **[1, 2006.01]**
1/184 • • • • adapted for attachment of washing machines or heating or cooling devices (washing machines for attachment D06F 7/00) **[1, 2006.01]**
1/186 • • • Separate partition walls, lids, protecting borders, or the like, for sinks **[1, 2006.01, 2019.01]**
1/20 • • Connecting baths or bidets to the waste pipe **[1, 2006.01]**
1/22 • • Outlet devices mounted in basins, baths, or sinks (stoppers A47K 1/14) **[1, 2006.01]**
1/23 • • • with mechanical closure mechanisms **[1, 2006.01]**
1/232 • • • • combined with overflow devices (overflow devices for basins or baths per se E03C 1/24) **[1, 2006.01]**
1/24 • • Overflow devices for basins or baths (E03C 1/232 takes precedence) **[1, 2006.01]**
1/242 • • • automatically actuating supply or draining valves **[1, 2006.01]**
1/244 • • • Separate devices to be placed on the outlet opening **[1, 2006.01]**
1/26 • • Object-catching inserts or similar devices for waste pipes or outlets (E03C 1/28 takes precedence) **[1, 2006.01]**
1/262 • • • combined with outlet stoppers **[1, 2006.01]**
1/264 • • • Separate sieves or similar object-catching inserts **[1, 2006.01]**
1/266 • • • Arrangement of disintegrating apparatus in waste pipes or outlets; Disintegrating apparatus specially adapted for installation in waste pipes or outlets **[1, 2006.01]**
1/28 • • Odour seals **[1, 2006.01]**
1/282 • • • combined with additional object-catching devices **[1, 2006.01]**
1/284 • • • having U-shaped trap **[1, 2006.01]**
1/286 • • • • having hand-operated valves against return of waste water **[1, 2006.01]**

1/288 • • • • having non-return valves against return of waste water (E03C 1/286 takes precedence) **[1, 2006.01]**
1/29 • • • having housing containing dividing wall, e.g. tubular **[1, 2006.01]**
1/292 • • • • having elastic housing **[1, 2006.01]**
1/294 • • • with provisions against loss of water lock **[1, 2006.01]**
1/295 • • • • using air-supply valves **[1, 2006.01]**
1/296 • • • • using water-supply valves **[1, 2006.01]**
1/298 • • • consisting only of non-return valve **[1, 2006.01]**
1/30 • • Devices to facilitate removing of obstructions in waste pipes or sinks **[1, 2006.01]**
1/302 • • • using devices moved through the pipes **[1, 2006.01]**
1/304 • • • using fluid under pressure **[1, 2006.01]**
1/306 • • • • by means of a tube connected to the water mains **[1, 2006.01]**
1/308 • • • • by means of a pumping device **[1, 2006.01]**
1/32 • • Holders or supports for basins **[1, 2006.01]**
1/322 • • • connected to the wall only **[1, 2006.01]**
1/324 • • • • adjustable **[1, 2006.01]**
1/326 • • • resting on the floor **[1, 2006.01]**
1/328 • • • • adjustable **[1, 2006.01]**
1/33 • • • Fastening sinks or basins in an apertured support **[1, 2006.01]**

E03D WATER-CLOSETS OR URINALS WITH FLUSHING DEVICES; FLUSHING VALVES THEREFOR

Subclass index

WATER-CLOSETS, FLUSHING DEVICES
General structure....1/00, 3/00
Special constructions....5/00, 7/00
ACCESSORIES, COMPONENT PARTS....9/00, 11/00
URINALS....13/00

1/00 Water flushing devices with cisterns [1, 2006.01]
1/01 • Shape or selection of material for flushing cisterns **[1, 2006.01]**
1/012 • • Details of shape of cisterns, e.g. for connecting to wall, for supporting or connecting flushing-device actuators **[1, 2006.01]**
1/02 • High-level flushing systems **[1, 2006.01]**
1/04 • • Cisterns with bell siphons **[1, 2006.01]**
1/05 • • • with movable siphon bells **[1, 2006.01]**
1/06 • • Cisterns with tube siphons **[1, 2006.01]**
1/07 • • • with movable or deformable siphon tubes **[1, 2006.01]**
1/08 • • • Siphon action initiated by air or water pressure **[1, 2006.01]**
1/10 • • • Siphon action initiated by raising the water level in the cistern, e.g. by means of displacement members **[1, 2006.01]**
1/12 • • • Siphon action initiated by outlet of air **[1, 2006.01]**
1/14 • • Cisterns discharging variable quantities of water (twin or multiple flushing cisterns E03D 1/22; flushing devices operated by pressure of the water supply system and discharging variable quantities of water E03D 3/12) **[1, 2006.01]**
1/16 • • Cisterns for periodical discharge **[1, 2006.01]**
1/18 • • Cisterns empty when not in action **[1, 2006.01]**
1/20 • • Cisterns with tiltably-mounted containers **[1, 2006.01]**
1/22 • • Twin or multiple flushing cisterns **[1, 2006.01]**
1/24 • Low-level flushing systems **[1, 2006.01]**
1/26 • • Bowl with flushing cistern mounted on the rearwardly extending end of the bowl (shape or material of the cistern E03D 1/01; constructional features of the bowl E03D 11/02-E03D 11/12) **[1, 2006.01]**
1/28 • • Bowl integral with the flushing cistern **[1, 2006.01]**
1/30 • Valves for high or low cisterns; Their arrangement (inlet valves, valves in general F16K) **[1, 2006.01]**
1/32 • • Arrangement of inlet valves (devices for reducing noise E03D 9/14) **[1, 2006.01]**
1/33 • • Adaptations or arrangements of floats (actuating-floats in general F16K 33/00) **[1, 2006.01]**
1/34 • • Flushing valves for outlets; Arrangement of outlet valves **[1, 2006.01]**
1/35 • • • Flushing valves having buoyancy **[2, 2006.01]**
1/36 • • Associated working of inlet and outlet valves **[1, 2006.01]**
1/38 • Adaptations or arrangements of flushing pipes (noise-absorbing means in pipe systems F16L 55/00) **[1, 2006.01]**

3/00 Flushing devices operated by pressure of the water supply system [1, 2006.01]
3/02 • Self-closing flushing valves (self-closing valves in general F16K 21/04) **[1, 2006.01]**
3/04 • • with piston valve and pressure chamber for retarding the valve-closing movement **[1, 2006.01]**
3/06 • • with diaphragm valve and pressure chamber for retarding the valve-closing movement **[1, 2006.01]**
3/08 • • with other retarding devices **[1, 2006.01]**
3/10 • Flushing devices with pressure-operated reservoir, e.g. air chamber **[1, 2006.01]**
3/12 • Flushing devices discharging variable quantities of water (flushing cisterns discharging variable quantities of water E03D 1/14) **[1, 2006.01]**

5/00 Special constructions of flushing devices (in motor vehicles or trailers B60R 15/00; in railway carriages B61D 35/00; in ships B63B 29/14; in aircraft B64D 11/02) **[1, 2006.01]**
5/01 • using flushing pumps **[1, 2006.01]**
5/012 • combined with movable closure elements in the bowl outlet (bowls with closure elements between bottom or outlet and outlet pipe E03D 11/10) **[1, 2006.01]**
5/014 • • with devices for separate removal of liquids and solids **[1, 2006.01]**
5/016 • with recirculation of bowl-cleaning fluid **[1, 2006.01]**

5/02 • operated mechanically or hydraulically (E03D 5/01, E03D 5/12 take precedence) **[1, 2006.01]**
5/04 • • directly by the seat or cover **[1, 2006.01]**
5/06 • • directly by the door **[1, 2006.01]**
5/08 • • directly by foot **[1, 2006.01]**
5/09 • • directly by hand **[1, 2006.01]**
5/092 • • • the flushing element, e.g. siphon bell, being actuated through a lever **[1, 2006.01]**
5/094 • • • the flushing element, e.g. siphon bell, being actuated through a cable, chain, or the like **[1, 2006.01]**
5/10 • operated electrically (E03D 5/01, E03D 5/12 take precedence) **[1, 2006.01]**
5/12 • discharging periodically (high-level cisterns for periodical discharge E03D 1/16) **[1, 2006.01]**

7/00 **Wheeled lavatories** (wheeled closets without flushing A47K 11/00; construction of land vehicles B62) **[1, 2006.01]**

9/00 **Sanitary or other accessories for lavatories** (hand tools for cleaning the toilet bowl A47K 11/10; seats or covers for closets A47K 13/00; body supports, other than seats, for closets A47K 17/02; devices for preventing contamination of drinking-water pipes E03C 1/10) **[1, 2006.01]**
9/02 • Devices adding a disinfecting, deodorising or cleaning agent to the water while flushing, or in the flushing tank (apparatus for disinfection of materials or objects in general A61L 2/00; treatment of water in general C02F) **[1, 2006.01]**
9/03 • • consisting of a separate container with an outlet through which the agent is introduced into the flushing water, e.g. by suction **[1, 2006.01]**
9/04 • Special arrangement or operation of ventilating devices (ventilating rooms in general F24F) **[1, 2006.01]**
9/05 • • ventilating the bowl **[1, 2006.01]**
9/052 • • • using incorporated fans **[2, 2006.01]**
9/06 • Auxiliary chambers with water connection to the flushing pipe and adapted to receive utensils for bowl-cleaning, e.g. brushes **[1, 2006.01]**
9/08 • Devices in the bowl producing upwardly-directed sprays; Modifications of the bowl for use with such devices (showers A47K 3/28; bathing devices for special therapeutic or hygienic purposes A61H 33/00, for specific parts of the body A61H 35/00) **[1, 2006.01]**
9/10 • Waste-disintegrating apparatus combined with the bowl **[1, 2006.01]**
9/12 • Means to prevent freezing of lavatories **[1, 2006.01]**
9/14 • Noise-reducing means combined with flushing valves (noise-absorbing means in pipe systems F16L 55/00) **[1, 2006.01]**
9/16 • Water pressure regulating means in flushing pipes **[1, 2006.01]**

11/00 **Other component parts of water-closets** (pipe joints or couplings in general F16L) **[1, 2006.01]**
11/02 • Water-closet bowls (auxiliary chambers with connections to flushing water for bowl-cleaning utensils E03D 9/06; modified for using upwardly-directed sprays E03D 9/08; seats or covers A47K 13/00) **[1, 2006.01]**
11/04 • • Bowls of flat shape with only slightly inclined bottom **[1, 2006.01]**
11/06 • • Bowls with downwardly-extending flanges **[1, 2006.01]**
11/08 • • Bowls with means producing a flushing water swirl **[1, 2006.01]**
11/10 • • Bowls with closure elements provided between bottom or outlet and the outlet pipe; Bowls with pivotally supported inserts **[1, 2006.01]**
11/11 • • Bowls combined with a reservoir, e.g. containing apparatus for disinfecting or for disintegrating **[1, 2006.01]**
11/12 • Swivel-mounted bowls, e.g. for use in restricted spaces **[1, 2006.01]**
11/13 • Parts or details of bowls; Special adaptations of pipe joints or couplings for use with bowls **[1, 2, 2006.01]**
11/14 • • Means for connecting the bowl to the wall, e.g. to a wall outlet **[2, 2006.01]**
11/16 • • Means for connecting the bowl to the floor, e.g. to a floor outlet **[2, 2006.01]**
11/17 • • Means for connecting the bowl to the flushing pipe **[2, 2006.01]**
11/18 • Siphons (for pipes in general F16L 43/00, F16L 45/00) **[1, 2006.01]**

13/00 **Urinals** (without flushing devices A47K 11/00) **[1, 2006.01]**

E03F SEWERS; CESSPOOLS

Subclass index

SEWERS.....1/00-9/00
CESSPOOLS.....11/00, 7/00

1/00 **Methods, systems, or installations for draining-off sewage or storm water [1, 2006.01]**

3/00 **Sewer pipe-line systems [1, 2006.01]**
3/02 • Arrangement of sewer pipe-lines or pipe-line systems **[1, 2006.01]**
3/04 • Pipes or fittings specially adapted to sewers (manufacture of concrete tubes B28; pipes or pipe fittings in general F16L) **[1, 2006.01]**
3/06 • Methods of, or installations for, laying sewer pipes (making pipes in situ F16L 1/038) **[1, 6, 2006.01]**

5/00 **Sewerage structures [1, 2006.01]**
5/02 • Manhole shafts or other inspection chambers (in general E02D 29/12); Snow-filling openings; Accessories (covers or frames for manholes or the like E02D 29/14) **[1, 2006.01]**

5/04 • Gullies with or without odour seals or sediment traps **[1, 2006.01]**

5/042 • • Arrangements of means against overflow of water, backing-up from the drain **[1, 2006.01]**

5/046 • • adapted to be used with kerbs (E03F 5/06 takes precedence) **[1, 2006.01]**

5/06 • • Gully gratings **[1, 2006.01]**

5/08 • Ventilation of sewers **[1, 2006.01]**

5/10 • Collecting-tanks; Equalising-tanks for regulating the run-off; Laying-up basins **[1, 2006.01]**

5/12 • Emergency outlets **[1, 2006.01]**

5/14 • Devices for separating liquid or solid substances from sewage, e.g. sand or sludge traps, rakes or grates (for use in sewage purification plants or both in sewage purification plants or in sewer systems B01D, C02F) **[1, 2006.01]**

5/16 • • Devices for separating oil, water, or grease from sewage in drains leading to the main sewer **[1, 2006.01]**

5/18 • Tanks for disinfecting, neutralising, or cooling sewage (arrangements in tanks as to the biological or chemical aspect C02F) **[1, 2006.01]**

5/20 • Siphon pipes or inverted siphons (for connections of baths, basins, or the like E03C 1/12) **[1, 2006.01]**

5/22 • Adaptations of pumping plants for lifting sewage (wheeled apparatus for emptying sewers or cesspools E03F 7/10; pumps, pumping plants, per se F04) **[1, 2006.01]**

5/24 • Installations for neutralising explosions in sewers **[1, 2006.01]**

5/26 • Installations for stirring-up sewage **[1, 2006.01]**

7/00 Other installations or implements for operating sewer systems, e.g. for preventing or indicating stoppage; Emptying cesspools [1, 2006.01]

7/02 • Shut-off devices (in general F16K) **[1, 2006.01]**

7/04 • • Valves for preventing return flow **[1, 2006.01]**

7/06 • Devices for restraining rats or other animals **[1, 2006.01]**

7/08 • Hand implements for emptying sewers or cesspools **[1, 2006.01]**

7/10 • Wheeled apparatus for emptying sewers or cesspools **[1, 2006.01]**

7/12 • Installations enabling inspection personnel to drive along sewer canals **[1, 2006.01]**

9/00 Arrangements or fixed installations for cleaning sewer pipes, e.g. by flushing (sediment traps, rakes, screens, or the like, arranged in sewer lines E03F 5/14; cleaning pipes in general, devices for cleaning pipes B08B 9/02) **[1, 2006.01]**

11/00 Cesspools (emptying cesspools E03F 7/00; features relating to treatment of sewage C02F) **[1, 2006.01]**