

*Indian Standard*

GLOSSARY OF TERMS RELATING TO WATER  
SUPPLY AND SANITATION

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INDIAN STANDARDS INSTITUTION  
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# *Indian Standard*

## GLOSSARY OF TERMS RELATING TO WATER SUPPLY AND SANITATION

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## *Indian Standard*

# GLOSSARY OF TERMS RELATING TO WATER SUPPLY AND SANITATION

### 0. FOREWORD

**0.1** This Indian Standard was adopted by the Indian Standards Institution on 31 January 1983, after the draft finalized by the Water Supply and Sanitation Sectional Committee had been approved by the Civil Engineering Division Council.

**0.2** As there are a number of technical terms in use in the field of water supply and sanitation, standardization of terminology would be useful to engineers, architects, contractors and others in the profession.

**0.3** In the formulation of this standard due weightage has been given to international co-ordination among the standards and practices prevailing in different countries in addition to relating it to the practices in the field in this country. This has been met by basing the standard on BS : 4118-1967 Glossary of Sanitation Terms ( Doc : 78/139958 DC ) ( *Under Revision* ).

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### 1. SCOPE

**1.1** This standard covers definitions of the terms relating to water supply and sanitation.

### 2. TERMINOLOGY

**2.1 Ablution Fountain ( Wash Fountain )**— A wash basin, circular, semi-circular or polygonal in plan at which more than one person can wash at the same time.

**2.2 Ablution Trough ( Washing Trough )**— A wash basin of elongated rectangular shape in plan at which more than one person can wash at the same time.

**2.3 Access Cover ( Access Door )**— A removable plate, usually secured by bolts or screws, to permit access to the interior of a pipe, pipe fitting, cylinder or tank for the purposes of inspection, repair or cleaning.

**2.4 Access Gully ( Rodding Eye Gully )**— A trapped gully with a rodding eye on the outlet permitting rodding from the surface of the ground.

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**2.5 Access Pipe** — A pipe provided with an opening with a removable cover for inspection and maintenance.

**2.6 Acoustic Insulation** — Insulation to resist the transmission of sound.

**2.7 Aerator** — A device that promotes aeration.

**2.8 Aerobic** — Pertaining to the action of micro-organisms in the presence of oxygen.

**2.9 Air Gap** — The distance between the lowest point of a water inlet or feed pipe to an appliance and the spill-over level ( or the overflowing level ) of the appliance.

**2.10 Air Lock** — The restriction or the stopping of the flow of water by air trapped in piping.

**2.11 Air Release Valve** — A manually or self-operated valve used to release entrapped air from a water pipeline or fitting.

**2.12 Air Test ( Pneumatic Test )** — A test for the soundness of drainage systems and discharge pipe systems by applying air pressure internally.

**2.13 Air Valve** — A valve that releases air from a pipeline automatically without loss of water, or introduces air into a line automatically if the internal pressure becomes less than that of the atmosphere.

**2.14 Air Vessel** — A closed chamber which utilizes the compressibility of contained air, either:

- a) To promote a more uniform flow of water when connected to the delivery pipe or suction pipe of a reciprocating pump, or to the delivery pipe of a hydraulic ram, or
- b) To minimize shock due to water hammer in a water installation.

**2.15 Air Water Storage Vessel** — A cylinder in which water is stored under pressure forming part of a pumped water supply system. Air in the upper section of the cylinder reacts to variations in the working pressure of the system and is used to control the stopping and starting of the pumps.

**2.16 Anaerobic** — Pertaining to the action of micro-organisms thriving in the absence of oxygen.

**2.17 Anchor Bracket** — A bracket which fits around pipe work in such a manner as to control the direction in which linear movement in the pipe work will take place.

**2.18 Anchorage** — External restraint provided to restrict the movement or displacement of pipework.

**2.19 Angle** — A fitting used on a rainwater gutter to change the direction of the gutter.

**2.20 Angle Branch ( Splay Branch )** — A branch fitting used for the straight entry of branch pipe or channel to a main pipe or channel at an angle of less than 90°.

**2.21 Anti Flooding Gully (Tidal Gully )** — A gully in which is incorporated a non-return valve in the form of a floating ball and seating to prevent the backing up of flood water.

**2.22 Anti Flooding Intercepting Trap** — An intercepting trap in which is incorporated a non-return valve to prevent the backing up of sewer surcharge.

**2.23 Anti Flooding Valve** — A drain fitting incorporating a mechanical non-return device as a means of giving a measure of protection to a drain or sewer against surcharge.

**2.24 Anti Splash Device** — A device fitted to the nozzle of a trap to ensure that the discharge will be non-splashing.

**2.25 Anti Splash Floor Channel** — A block channel, in which the cross section of the waterway forms more than a half circle as a protection against spillage over the edges.

**2.26 Anti Splash Shoe** — A rainwater fitting fixed at the lower end of a rainwater pipe and so shaped as to reduce splashing when rainwater is discharging into the open air.

**2.27 Anti Vacuum Valve** — A valve fitted in a water supply installation which opens to admit air if the pressure within the system falls below atmospheric pressure.

**2.28 Astragal Joint** — A spigot and socket joint used on a lead rainwater, waste or similar pipe, the socket incorporating ornamental mouldings called astragals.

**2.29 Atomizer Shower** — A shower head in which opposing jets of water impinge on each other and are thus broken up into a fine mist.

**2.30 Autogenous Welded Joint** — A welded joint in which two parts made of the same metal are welded together with or without the use of a filler rod of the same metal.

**2.31 Automatic Flushing Cistern** — A flushing cistern arranged to discharge its content by siphonage at regular intervals, determined by the rate at which water is fed into the cistern.

**2.32 Automatic Flushing Tank** — A flushing tank arranged to discharge its contents by siphonage at regular intervals.

**2.33 Automatic Gas Valve Water Operated Type** — A gas control on an instantaneous gas fired water heater operated by the pressure difference created by water flow through a venturi throat.

**2.34 Back Boiler** — A boiler fitted at the back of an open fire place.

**2.35 Back Drop Connection** — A vertical or steeply sloping connection to or near the invert level of a manhole from a sewer or drain at a higher level.

**2.36 Backflow**

- a) The flow of water or other liquids, mixtures, or substances into the distributing pipes of a potable supply of water from any sources other than its intended source.
- b) The flow of a liquid in a direction reverse of that intended.

**2.37 Backflow Prevention Device** — Any approved measure or fitting or combination of fittings specifically designed to prevent backflow or back-siphonage in a water service.

**2.38 Back Inlet Gully** — A gully having an integral horizontal or vertical inlet arranged so that the liquid is received above the water level in the gully but below the grating or sealed cover.

**2.39 Backnut**

- a) A locking nut provided on the screwed shank of a tap, valve or pipe fitting for securing it to some other object.
- b) A thin threaded nut, dished on one face to retain a grommet, used to form a watertight joint on a long-threaded pipe.

**2.40 Back Pressure** — Air pressure in drainage pipes greater than atmospheric pressure.

**2.41 Back Siphonage** — The flowing back of used, contaminated, or polluted water from a plumbing fixture or vessel into a water supply pipe due to a reduced pressure in such pipe.

**2.42 Badger** — A device designed to be drawn manually or driven by water through a line of pipes for the removal of deposits.

**2.43 Bag Stopper** — An inflatable bag used as a stopper in pipe testing.

**2.44 Balcony Outlet** — A fitting intended to be interposed in a vertical rainwater pipe passing through a balcony, and providing an inlet for the drainage of rainwater from the balcony.

**2.45 Ball Joint** — A joint in which the two parts joined are shaped so as to be in contact over part of the surface of a sphere and arranged so that, within certain limits, the axis of each part can be set in any desired plane and at any desired angle, one to the other.

**2.46 Ball Test** — A test for circularity of, and freedom from obstruction in, a drain. A ball, less in diameter than the diameter of the drain by a specified amount, is rolled through the drain.

**2.47 Barrel Nipple** — A very short piece of steel, brass or copper tube, having an external taper thread at each end.

**2.48 Barron's Bend** — A short three-quarter section branch bend.

**2.49 Bath** — Any of a wide range of sanitary appliances used for ablution or treatment purposes.

**2.50 Batter**

a) A slope.

b) A slope near to the vertical of urinal slab.

**2.51 Bedding** — The material on which the pipe is laid and which provides support for the pipe. Bedding can be concrete, granular material or the prepared trench bottom.

**2.52 Bedding Factor** — The ratio between the strength of a rigid pipe when laid on a specified bedding and the strength of that pipe as given in the appropriate Indian Standard.

**2.53 Bedpan Sink ( Bedpan Sluice )** — An open appliance in which bedpans and urine bottles may be emptied and cleansed.

**2.54 Bedpan Washer** — An enclosed sanitary appliance in which bedpans and urine bottles may be emptied and cleansed.

**2.55 Benching** — Sloping surfaces constructed on either side of channels at the base of a manhole or inspection chamber for the purpose of confining the flow of sewage, avoiding the accumulation of deposits and providing a safe working platform.

**2.56 Bend** — A curved fitting for a pipe or channel, or a curve made in a pipe, for changing the direction of the run.

**2.57 Bent Ferrule** — A ferrule embodying a 90° bend.

**2.58 Bib Tap** — A tap with a horizontal inlet and a nozzle arranged to discharge in a downward direction.

**2.59 Bidet** — A sanitary appliance, on which the user sits, for washing the excretory organs.

**2.60 Biological Filter** — It consists of a bed of gravel, broken stone, clinkers or such other materials through which sewage flows. The organic matter present in the same gets partly removed and stabilized by the biological slime on the surface of the media.

**2.61 Blank Flange ( Blind Flange )** — A solid disc with bolt holes for bolting to a flange to close the outlet of pipe, fitting or vessel.

**2.62 Block Channel** — A semi-circular channel formed in a rectangular base.



**2.63 Block Taft Joint** — A joint, in a lead or lead alloy pipe fixed in a vertical chase, which also provides a means of supporting the pipe. The pipe is passed through blocks of wood or stone built into the chase, and a Taft joint, incorporating a lead flange to rest on each block, is made.

**2.64 Boiler** — An enclosed vessel in which water is heated by the direct application of heat.

**2.65 Bore** — The water way through a pipe, tap, valve or other fitting.

**2.66 Boss** — A protuberance on a vessel pipe or fitting, provided to facilitate the connection of a pipe fitting thereto.

**2.67 Bottle Filling Tap** — A tap with a tapered nozzle arranged to deliver a stream of liquid in a form suitable for filling a bottle.

**2.68 Bottle Trap** — A compact form of trap in which the division between the inlet and outlet legs is formed by a dip tube or vane within the body of the trap. The lower part of the trap is removable for access.

**2.69 Boundary Wall Gutter** — A roof gutter having a flat sole, one upright side and one side angled to suit the slope of an adjacent pitched roof.

**2.70 Bowl Urinal** — A urinal consisting of a bowl-shaped receiver, which is fixed at a convenient height above the floor.

**2.71 Box Gutter** — A roof gutter with a flat sole and both sides upright.

**2.72 Branch**

a) Special form of vitrified sewer tile and cast iron pipe used for making connections to a sewer or water main. The various types are called T, Y, T-Y, double Y, and V branches according to their respective shapes.

b) Any part of a piping system other than a main.

**2.73 Brazed Joint** — A connection in which the parts are joined with molten brass.

**2.74 Breech Fitting** — Breeches fitting, Breeching fittings — A symmetrical pipe fitting in which two parallel pipes unite into one pipe.

**2.75 Bronze Welded Joint** — A welded joint in which the parts are joined with molten bronze. The process is distinguished from brazing by the local building up of the welding material.

**2.76 Bucket Pump** — A reciprocating pump being a lift pump incorporating a displacing member, called the bucket, in the form of a short cylinder embodying a non-return valve.

**2.77 Bucket Sink** — A sink fixed at or near floor level to facilitate filling buckets. It has a protective strip on the top front edge to prevent damage

by buckets and is usually provided with a grip on which to rest the buckets. It may have a high back so as to prevent damage to the adjacent surface by splashing. It has a flush grated waste.

**2.78 Buffer Clip** — A pipe clip for a WC flush pipe incorporating a rubber buffer to prevent the WC seat from damaging the pipe.

**2.79 Bush**

- a) A pipe fitting used for reducing the size of a threaded connection. It has an external thread and a similar diameter internal threaded and is furnished with a hexagon or round at one end to enable it to be manipulated by a spanner or pipe grip.
- b) A short sleeve placed in the socket of a fitting to reduce the bore to receive the spigot or a smaller pipe.

**2.80 Bushing** — A plug designed to be threaded into the end of a pipe. The plug is bored and tapped to receive a pipe of smaller diameter than that of the pipe into which the bushing is screwed.

**2.81 Calorifier** — A type of indirect cylinder containing a tubular primary heater. The term is most commonly used to describe indirect cylinders heated by steam or high temperature hot water supplying hot water for industrial purposes.

**2.82 Cantilever Bracket** — A concealed bracket for supporting a wall hung sanitary appliance clear of the floor and so designed that the load is transferred to the back wall.

**2.83 Cap** — A pipe fitting fixed over the spigot end of a pipe or fitting to close it.

**2.84 Capacity (Actual Capacity)** — The volume of a storage cistern measured up to the maximum water line.

**2.85 Capillary Fitting** — A pipe fitting, the connections to which are made by means of capillary joints.

**2.86 Capillary Joint** — A fine clearance spigot and socket joint into which molten solder is caused to flow by capillary action.

**2.87 Cascade Intercepting Trap** — An intercepting trap in which the invert level of the outlet is below that of the inlet.

**2.88 Casing**

- a) An enclosure of wood or other suitable material for a cistern.
- b) A duct, formed of wood or other material attached to the surface of a wall, floor or ceiling.

**2.89 Catchpit** — A chamber constructed to trap detritus and facilitate its removal.

**2.90 Catchpit Trap** — A bottle trap with a removable lower part large enough to retain waste for examination or recovery.

**2.91 Cathodic Protection** — A method of protecting metal pipes or vessels exposed to corrosion. The corrosive action is modified so that the metal to be protected becomes the cathode instead of the anode, and this is done either:

- a) by attaching a block of other metal, higher in the electrochemical series, which then becomes the anode and suffers corrosion or
- b) by applying a small electric current from an external source.

**2.92 Caulked Joint** — A spigot and socket joint in which the jointing material is compacted by means of a caulking tool.

**2.93 Cavitation** — A phenomenon in the flow of water which causes the formation and collapse of air bubbles in the flow of water due to sharp drop in pressure. This can cause severe pitting or corrosion of the surface on which the bubbles break.

**2.94 Centrifugal Pump** — A pump in which pressure is imparted to a fluid by the centrifugal force caused by a rotating impeller.

#### **2.95 Cesspool**

- a) An underground chamber for the reception and storage of foul water, the contents of which are periodically removed for disposal.
- b) A box-shaped receiver constructed in a roof or gutter for collecting rainwater which then passes into a rainwater pipe connected thereto.

#### **2.96 Chair**

- a) Concealed frame for supporting a wall hung sanitary appliance clear of the floor but so designed that the load is transferred to the floor.
- b) A bed of concrete or other suitable material on the trench floor to provide a support for the pipes at intervals.

**2.97 Change Collar** — A double collar specially for the purpose of joining the spigot end of a pipe to that of the nearest metric equivalent.

#### **2.98 Channel**

- a) A perceptible natural or artificial waterway which periodically or continuously contains moving water or which forms a connecting link between two bodies of water. It has definite bed and banks which confine the water.
- b) A fitting for the formation of a waterway.

- 2.99 Channel Bend** — A fitting of half-circular cross section, for changing the direction of flow.
- 2.100 Channel Junction** — A fitting of semi-circular cross section, used to connect one or more branch channels to a main channel.
- 2.101 Channel Stop-End** — A fitting for stopping the flow in a channel, mostly installed at the dead end of a channel.
- 2.102 Chase** — A continuous recess in a wall, floor or ceiling for the purpose of holding pipes and conduits.
- 2.103 Check Valve** — A device provided with a disc hinged on one edge so that it opens in the direction of normal flow and closes with reversal of flow.
- 2.104 Chemical Closet** — A portable or fixed appliance containing a fluid, generally with disinfectant and deodorant properties, and used for the reception of human excreta.
- 2.105 Circuit** — An assembly of pipes and fittings, forming part of a hot water system, through which water circulates.
- 2.106 Circulation Pipe** — A pipe forming part of the primary or secondary circuit of a hot water system.
- 2.107 Cistern** — A fixed container for water in which the water is at atmospheric pressure. The water is usually supplied through a float operated valve.
- 2.108 Cleaner's Sink** — A sink usually fixed at normal height, but with its taps at a height convenient for filling buckets. It has a protective strip on the top front edge to prevent damage by buckets.
- 2.109 Cleaning Eye** — An access opening in a pipe or pipe fitting arranged to facilitate the clearing or obstructions and fitted with removable cover.
- 2.110 Clearing Arm** — A branch provided on a drain pipe or fitting to permit the insertion of drain rods for clearing obstructions.
- 2.111 Clencher Stopper** — A sealing plate in the rodding eye of an intercepting trap with a locking lever, arranged to be easily removable by pulling a chain from high up in an interceptor chamber.
- 2.112 Cloaking Piece** — A suitably shaped piece of glass ceramicware for fitting between adjacent stalls of a range of stall urinals or adjacent wash basin fitted in a range, in order to cover the joint.
- 2.113 Closed Coupled WC Suite** — A WC suite which does not require a flush pipe, the flushing cistern being directly connected to the pan.

**2.114 Closed Circuit** — A system of pipes and fittings in which the same water is circulated and from which no water is drawn off for use, as in a hot water heating system.

**2.115 Cock** — A device for controlling the flow of water, comprising a body having a parallel or taper seating into which is fitted a rotatable plug with a waterway which can be displaced relative to the waterway through the body.

**2.116 Cold Feed Pipe ( Feed Pipe )**

- a) A distributing pipe conveying cold water from a cistern to a vented or unvented hot water apparatus.
- b) A supply pipe conveying cold water from the service pipe to an unvented hot water apparatus.

**2.117 Collar** — A pipe fitting in the form of a sleeve for joining the spigot ends of two pipes in the same alignment.

**2.118 Collection Chamber** — A compartment situated at the lower end of the chute for collecting and housing the refuse during the period between two successive clearings.

**2.119 Colour Test** — A test for tracing the flow in a drain or sewer, or for locating leaks therefrom, by introducing colouring matter.

**2.120 Combination Hot Water Storage Unit ( Combination Tank )**

- a) A hot water supply apparatus comprising a hot water storage tank or cylinder with a cold water feed cistern immediately above it, the two being fabricated together as a compact unit.
- b) A hot water supply apparatus comprising a hot water storage cistern with a small cold water feed cistern beside it or inside it so that the two cisterns have the same water level.

**2.121 Combination Sink** — A sink with an integral drainer or drainers.

**2.122 Combination Stop and Wash Up Sink** — An arrangement of a sink fitted with a plug and chain waste discharging into a slophopper alongside.

**2.123 Combination Tap Assembly ( Combined Fitting )** — A hot water tap and a cold water tap coupled together with a common nozzle, which may be either fixed or swivelling, so as to discharge hot, cold or mixed hot and cold water.

**2.124 Combined Feed and Expansion Cistern** — A cistern for supplying cold water to a hot water system which also accommodates the increase in volume of the water when hot.

**2.125 Combined System** — A system of drains or sewers in which foul water and surface water are conveyed by the same pipes.

**2.126 Communication Pipe** — That part of a service pipe which vests in the water undertakers. It starts at the water main and terminates at a point which differs according to the circumstances of the case.

**2.127 Compound Gland Cock** — A cock in which the plug is retained in the body by the cover, the stuffing box being formed in the cover.

**2.128 Compression Fitting** — A pipe fitting, the pipe connection to which are made by means of compression joints.

**2.129 Compression Joint** — A joint made between pipe and pipe fittings having screwed parts, in which the end of the pipe is held by compression.

**2.130 Concentric Taper ( Concentric Taper Pipe )** — A taper for connecting together pipes having their axis in the same straight line.

**2.131 Conduit** — A pipe or channel for the conveyance of a fluid.

**2.132 Connection** — A boss, flange or socket, on a fitting or appliance, to which a pipe or fitting may be connected.

**2.133 Corbel Sanitary Appliance** — A sanitary appliance with an integral fixing block for building into a wall.

**2.134 Coupling** — A pipe fitting used for connecting together pipes, or fittings.

**2.135 Cover**

- a) A removable plate for permitting access to a pipe, fitting, vessel or appliance.
- b) The vertical distance between the top of the barrel of a buried pipe or other construction and the surface of the ground.

**2.136 Cradle** — A support shaped to fit the underside of a pipe, cylinder or appliances.

**2.137 Crawlway** — A space at any level providing access to services hung or laid therein and large enough to crawl through.

**2.138 Creep** — A slow plastic deformation or movement of a material under stress.

**2.139 Crockery Sink** — A sink usually made of material either than ceramics or cast iron, in which crockery can be washed up with the minimum of risk of breaking or chipping.

**2.140 Cross** — A pipe fitting used for connecting four pipes at right angles.

**2.141 Cross Connection**

- a) A connection between two normally independent pipelines which permits flow from either pipeline into the other.

- b) An irregular connection between a foul drainage system and a surface water drainage system.
- 2.142 Cross Vent ( Yoke Vent )** — A short relief vent between the main discharge pipe and a main ventilating pipe.
- 2.143 Crown**
- a) See 2.570.
- b) Of a trap, the topmost point of the inside of a trap outlet.
- 2.144 Crude Sewage ( Raw Sewage )** — Untreated sewage.
- 2.145 Cylinder** — A closed cylindrical vessel capable of containing water under pressure greater than atmospheric pressure.
- 2.146 Cylinder Hot Water** — A cylinder for storing hot water.
- 2.147 Dead Leg** — A length of hot water pipe leading to a draw-off point and not forming part of a circuit.
- 2.148 Deep Manhole** — A manhole of such depth that an access shaft is required in addition to the working chamber.
- 2.149 Deep Seal Trap** — A trap with a water seal, more than 50 mm.
- 2.150 Dental Cuspidor** — A sanitary appliance for the reception of mouth washing having an inlet for flushing water and a waste connection.
- 2.151 Depth of Water Seal** — The depth of water which would have to be removed from a fully charged trap before air could pass freely through the trap.
- 2.152 Designed Working Pressure** — The pressure up to which a pipe, vessel or pump is designed to work.
- 2.153 Detritus** — Inorganic material, for example, grit, from road, yard and roof washings.
- 2.154 Diaphragm Pump** — A pump in which liquid is drawn into and discharged from a chamber through non-return valves by the alteration in the capacity of the chamber by the flexing of a diaphragm.
- 2.155 Direct Cylinder** — A cylinder in which water is heated by an external source or by an immersion heater within the cylinder.
- 2.156 Direct System** — A hot water supply installation in which the water supplied to the draw-off points is heated by a primary source of heat such as solid fuel, gas electricity or oil.
- 2.157 Disc Feed** — A method of regulating the rate of flow into an automatic flushing cistern by the use of a thin disc, with a calibrated orifice, mounted in a union in the feed pipe.

- 2.158 Discharge Pipe** — A pipe which conveys the discharge from sanitary appliances. It may also convey rainwater.
- 2.159 Dished Top ( Dish brick )** — A shallow receiver for setting on top of a gully. It is usually square on plan with a square or circular outlet ( to suit the gully top ) rebated to receive a gully grating.
- 2.160 Dispersion Trench** — A trench in which open jointed pipes are laid and surrounded by coarse aggregate media and overlaid by fine aggregate. The effluent gets dispersed through the open joints and is absorbed in the neighbouring soil.
- 2.161 Distributing Pipe** — Any pipe conveying water to the consumer points from a storage cistern, or from a hot water apparatus supplied from a feed cistern, and under pressure from that cistern or apparatus.
- 2.162 Diversity Factor ( Probability of Simultaneous Demand ) ( Probability of Simultaneous Discharge )** — A factor used in the design of pipework to determine the maximum rate of flow to allow for in a pipe. Where there is a large number of draw-off points it is improbable that all will be in use at the same time. Similarly, where a large number of outlets discharge into one outlet pipe or channel it is improbable that all will be used at the same time. The diversity factor is the probable rate of flow divided by the possible total rate of flow.
- 2.163 Domestic Hot Water Supply System** — An installation of pipework and associated components in which water is heated and piped to draw-off taps from which it is drawn for ablutionary and cleansing purposes. The term is applicable irrespective of the type of building in which the system is fitted.
- 2.164 Domical Grating** — A dome-shaped grating for covering the outlet of a urinal, floor channel or roof outlet.
- 2.165 Double Air Valve** — An air valve having two chambers, one with a small orifice and one with a large orifice.
- 2.166 Double Branch** — A branch fitting used to connect two branch pipes or channels from opposite sides to a main pipe or channel.
- 2.167 Double Collar** — A double socket with a central register.
- 2.168 Double Feed Indirect Cylinder** — An indirect cylinder which requires a separate feed cistern and feed pipe for both the primary and secondary water.
- 2.169 Double Outlet Type Combination Tap Assembly** — A combination tap assembly in which the streams of hot and cold water are kept separate and do not mix until they emerge from the nozzle or bib tap and which does not require the hot water and the cold water to be at balanced pressure.



**2.170 Double Socket** — A pipe fitting comprising a short pipe with a socket at each end for jointing the spigot ends of two pipes in the same alignment.

**2.171 Drain** — A conduit or channel for the carriage of storm water, sewage or other used water.

**2.172 Drain Chute** — A tapered drain fitting fitted to the inlet or outlet of a manhole to facilitate rodding.

**2.173 Drainer** — An impervious surface adjacent to, and having a fall towards, a sanitary appliance such as a sink. It may be integral with the appliance or separate, and its surface is often fluted to improve drainage.

**2.174 Draining Tap** — A tap fitted to drain off the contents of a water system, pipe or vessel.

**2.175 Drain Plug** — A removable expandable device for sealing off a portion of drain, normally for testing purposes.

**2.176 Drain Shoe** — A drain fitting consisting of a short length of horizontal pipe with either a vertical or a horizontal socketed inlet and having an access opening into which may be fitted either a grating or an access cover.

**2.177 Drain Ventilating Pipe (DVP)** — A pipe installed to provide flow of air to or from a drain to prevent undue concentration of foul air in drain. Main soil pipe or main waste pipe may serve as drain ventilating pipe wherever their upper portions, which do not receive discharges, are extended to the roof level and let open to air.

**2.178 Draw-off Cock** — A cock for the purpose of drawing off water.

**2.179 Drench Shower** — A shower rose with a large output arranged to give the user a rapid douche automatically in an emergency.

**2.180 Drinking Fountain** — A sanitary appliance which provides a low pressure jet of water from which the user may drink directly, the supply being controlled by a hand or foot-operated valve.

**2.181 Drinking Water Pipe** — A pipe conveying water intended for drinking or culinary purposes and made of materials that will not adversely affect water quality.

**2.182 Drip Sink** — A small sink for catching any drips or waste flow from, for example, a water tap.

**2.183 Drop Connection** — A length of conduit installed vertically immediately before its connection to a sewer or to another drain.

**2.184 Drop-End** — A gutter outlet, with nozzle and stop-end combined in one fitting.

**2.185 Drop Manhole** — A manhole installed in a sewer where the elevation of the incoming sewer considerably exceeds that of the outgoing sewer; a vertical waterway outside the manhole is provided to divert the waste water from the upper to the lower level so that it does not fall freely into the manhole except at peak rate of flow.

**2.186 Dry Weather Flow**

- a) The foul water, together with infiltration, if any, flowing in a sewer or drain in dry weather.
- b) The rate of flow of foul water, together with infiltration, if any, in a sewer or drain in dry weather.

**2.187 Dry Well** — An underground chamber in which is housed pumping apparatus together with its associated pipework and equipment.

**2.188 Dual Flush Cistern** — A WC flushing cistern which gives flushes of two different volumes, either of which can be selected by the user.

**2.189 Duct** — A tube or channel for the conveyance of a fluid; a conduit.

**2.190 Earth Closet** — A closet containing an appliance for the reception of human excreta, consisting of a bucket with a superimposed seat. Loose dry earth or ashes are used to cover each deposit of excrement.

**2.191 Easy Clean Cover ( Loose Cover )** — A smooth cover fitting over the head and gland of a tap or stopvalve.

**2.192 Eaves Gutter** — A gutter fixed at the eaves.

**2.193 Effective Opening** — The minimum cross-sectional area at the point of water supply, measured or expressed in terms of (a) diameter of a circle, (b) if the opening is not circular, the diameter of a circle of equivalent cross-sectional area.

**2.194 Effluents**

- a) *Tank Effluent* — The supernatant liquid discharge from a septic tank.
- b) *Filter Effluent* — The liquid discharged from a biological filter.

**2.195 Ejector Pump ( Ejector )** — A pump for ejecting liquid from a sump, cellar or the like incorporating an injector which is a device in which the pressure of a stream of air, steam or water is caused to fall temporarily below the pressure of the liquid to be pumped so as to entrain that liquid.

**2.196 Elbow** — A pipe fitting for providing a sharp change of direction in a pipeline.

**2.197 Elbow Action Tap ( Surgeon's Tap )** — A quarter turn tap with a lever handle long enough to be operated by the forearm. Contrast with Wrist Action Tap.

**2.198 Electrolytic Insulation** — Insulation to resist the transmission of an electric current with the object to combating the corrosion of metals by electrolytic action.

**2.199 Expansion Cistern** — A cistern forming part of a hot water heating system, which accommodates the increase in volume of the water when hot.

**2.200 Expansion Joint** — A joint which permits relative movement of the jointed parts caused by expansion and contraction due to temperature change.

**2.201 Extension Boss** — A fitting having a male thread at one end and a female thread at the other end for extending the distance between a tap boss or pipe fitting and a bib tap.

**2.202 Extension Seat** — A WC seat which is attached at the back, by means of side or top hinges, to a flat piece of wood or plastics material. This extension is for covering the joint between the flush pipe and the WC pan and is secured to the pan by means of seat bolts.

**2.203 Eye Washing Fountain** — A sanitary appliance installed in work places where there is risk of injury to eyes by solid particles or dangerous liquids and gases. The appliance consists of a small bowl with two jets of water controlled by a hand or foot operated valve in such a way that the user can bathe the eyes without touching them.

**2.204 Fall** — The difference in level between a high and low point.

**2.205 Fascia Bracket** — An eaves gutter support designed for screwing to a fascia board.

**2.206 Faucet** — A valve on a water pipe by means of which water can be drawn from or held within the pipe. The valve is placed on the end of the pipe.

**2.207 Feed Cistern** — Any storage cistern used for supplying cold water to a hot water apparatus, cylinder or tank.

**2.208 Female** — That part of a two-part coupling within which the male part is enclosed.

**2.209 Ferrule**

a) A pipe fitting for connecting a service pipe to a water main.

b) A pipe fitting for connecting an overflow pipe to a cistern.

**2.210 Ferrule Key** — A key for operating the valve of a screwdown ferrule.

**2.211 Fine Solder Joint ( Copper Bit Joint )** — A soldered joint for lead or lead alloy pipes made by shaping and fitting the pipe ends to form a taper entering a bellmouth and melting in fine solder.

**2.212 Fire Bend** — A bend made in a pipe by applying heat and bending the pipe while hot.

**2.213 Filter Media** — Any material through which water, waste water or other liquid is passed for the purpose of purification treatment or conditioning.

**2.214 Fitting** — Coupling, flange, branch, bend tees, elbows, unions, waste with plug, P or S trap with vent, stop ferrule, stop valve, bib tap, pillar tap, globe tap, ball valve, cistern storage tank, baths water-closets, boiler geyser, pumping set, with motor and accessories, meter, hydrant valve and any other article used in connection with water supply, sewage and sanitation.

**2.215 Flange** — A projecting flat rim which may be cast, screwed or welded on a pipe, fitting or vessel for making a joint.

**2.216 Flanged Joint** — A joint made by the connection of two flanges by bolts or studs and nuts and gaskets of suitable material are generally used in between flanges.

**2.217 Flap Valve** — A plate or disc hinged at the top and resting on the face of an orifice, thus permitting flow of liquid in one direction only.

**2.218 Flexible Joint** — A joint so designed and made as to permit angular deflection and small changes in a length of a pipeline without loss of water tightness.

**2.219 Float** — A body lighter than water riding on a water surface and actuating a mechanism by its response to rise or fall of the water level.

**2.220 Float Operated Valve ( Ballvalve )** — A valve, for controlling the flow of water into a vessel, the valve being operated by the vertical movement of a float riding on the surface of the water in the vessel automatically.

**2.221 Float Operated Valve — Croydon Type** — A float operated valve, not being a float operated valve ( equilibrium type ), in which the flow of water is controlled by vertical movement of a piston.

**2.222 Float Operated Valve — Delayed Action** — A float operated valve with its float riding on the surface of the water in an open-topped chamber fitted within a cistern. The opening of the valve is delayed until the water level in the cistern has fallen through a fixed distance, when the chamber empties itself into the cistern through a non-return valve. When the water level rises again, the chamber is refilled by flow over its top edge, thus quickly closing the float operated valve.

**2.223 Float Operated Valve — Diaphragm Type** — A float operated valve, in which the flow of water is controlled by the flexing of a diaphragm and which incorporates or is fitted with a discharge component to conduct the water into the cistern in which the float operated valve is to be used.

**2.224 Float Operated Valve — Equilibrium Type** — A float operated valve, so designed that the hydraulic forces acting on the closing disc or piston are hydraulically balanced.

**2.225 Float Operated Valve — Portsmouth Type** — A float operated valve, not being an equilibrium ballvalve, in which the flow of water is controlled by horizontal movement of a piston.

**2.226 Float Operated Valve — Reverse Action** — A float operated valve, for use in large automatic flushing cisterns, which is open when the float is at top water level and closed when the float is at bottom water level. A pet cock on the supply side of the valve initiates the operation.

**2.227 Flow Pipe** — A pipe in a primary hot water circuit in which water moves away from the boiler, or a pipe in a secondary hot water circuit in which water moves away from the hot water storage vessel.

**2.228 Flush Grated Waste** — A waste with an integral grating flush with its inlet end and hence incapable of accepting a waste plug.

**2.229 Flushing Cistern** — A cistern provided with a device for rapidly discharging the contained water and used in connection with a sanitary appliance for the purpose of cleansing the appliance and carrying away its contents into a drain.

**NOTE** — The nominal size of a cistern is the quantity of water discharged per flush.

**2.230 Flushing Manhole** — A manhole at which water for flushing is introduced into a drainage system.

**2.231 Flushing Tank** — A tank from which water is discharged to flush a system of drains. Contrast with flushing cistern.

**2.232 Flushing Trough (Trough Cistern)** — A flushing apparatus which combines several discharging units in one long cistern body to allow the more frequent flushing of the WC pans in a range than is possible with individual flushing cisterns.

**2.233 Flush Pipe** — A pipe for the conveyance of flushing water from a flushing cistern or flushing valve to a WC pan, slop hopper or urinal.

**2.234 Flush Pipe Connector** — A joining device used to make a water-tight seal between the flush pipe and the water inlet to a WC pan or slop-hopper.

**2.235 Flush Valve (Flushing Valve)** — A valve, for controlling the flushing water supply to a WC pan, or similar appliance, opened by hand and closed automatically after use.

**2.236 Fluorescine Test** — A colour test using fluorescine to produce a vivid green colour.

- 2.237 Foot Action Tap** — A tap which can be operated at floor level by the foot.
- 2.238 Foot Bath** — A shallow bath for washing the feet, fixed at a low level and provided with hot and cold water taps and a waste outlet.
- 2.239 Foot Valve** — A non-return valve fitted at the bottom of a pump suction pipe in order to retain the water in the suction pipe.
- 2.240 Force Pump** — A pump which forces water against an opposing pressure; in contradiction to a lift pump.
- 2.241 Formation** — The finished level at the bottom of a trench or heading to receive the permanent work.
- 2.242 Foul Water** — Any water contaminated by domestic waste or trade effluent.
- 2.243 Foul Water Drain** — A drain intended to convey foul water.
- 2.244 French Drain or Rubble Drain** — A shallow trench filled with coarse rubble, clinker, or similar material with or without field drain pipes.
- 2.245 Friction Head ( Friction Loss )** — Loss of head due to friction.
- 2.246 Frost Line** — The line joining the points of greatest depths below ground level up to which the moisture in the soil freezes.
- 2.247 Fusion Joint** — A joint made on certain types of plastics piping, for example polyethylene, in which the surfaces which are to be in contact in a closely fitting spigot and socket are separately heated. While both are still hot, the spigot is inserted in the socket, whereupon the two become fused together.
- 2.248 Garage Gully** — A large diameter deep gully usually provided with an extra deep seal and a perforated sediment bucket. Its function is to intercept small quantities of petrol and oil.
- 2.249 Gas Circulator** — A water heating appliance connected to a storage cylinder or tank from which the hot water can be drawn. The connections are made by flow and return pipes in which natural circulation takes place.
- 2.250 Gasket** — A piece of compressible material, often preformed, used to make a joint between two flat surfaces.
- 2.251 Gaskin ( Spun Yarn, Yarn )** — Loosely-laid plain or tarred rope used for caulking into a spigot and socket joint prior to the insertion of the jointing material.
- 2.252 Gate Valve** — A valve which affords a straight-through flow and in which a sliding gate is moved in its own plane at right angles to the flow.

**2.253 General Washing Place** — A washing place provided with necessary sanitary arrangements and common to more than one tenement.

**2.254 Gland** — A device for preventing the escape of water from a valve or pumps along the surface of the spindle or shaft.

**2.255 Globe Tap** — A tap with a horizontal inlet, for fitting through the upright end of a bath, having a partially spherical body with a vertical nozzle.

**2.256 Globe Valve** — A screwdown valve having a partially spherical body with a horizontal inlet and horizontal or vertical outlet.

**2.257 Gradient** — The ratio of the difference in level between two points and the horizontal distance between them.

**2.258 Gravity Main** — A main through which the water flows by gravity without aid of any mechanical device from the source.

**2.259 Greese Interceptor ( Greese Trap )** — A chamber, on the line of a drain or waste pipe, for preventing greese from passing into the drainage system.

**2.260 Grit Gully ( Detritus Gully )** — A gully with a deep sump ( *See Sump* ).

**2.261 Group Connector** — A double or triple branch drain fitting, with socketed branches to receive waste pipes, and a spigoted outlet for connecting to any socketed drain inlet for example a gully.

**2.262 Guide Bracket** — A pipe bracket so designed and installed as not to restrain linear movement of the pipework to which it is fitted.

**2.263 Gully** — A drain fitting or assembly of fittings to receive surface water and/or discharge from waste pipes. The top usually has a grating but may have a sealed cover.

**2.264 Gutter** — A channel for collecting and carrying surface water.

**2.265 Half Round Channel** — A channel of semi-circular cross section.

**2.266 Half Round Gutter** — An eaves gutter having a half round cross section.

**2.267 Half Round Gutter Beaded** — A half round gutter with one edge, or both edges, stiffened by having an integral beading.

**2.268 Handhole** — A small opening with an access cover to provide for the inspection, repair or cleaning of the inside of a vessel or pipe.

**2.269 Handstop** — A hand-operated plate for stopping the flow in a pipe or channel.

**2.270 Hand Rinse Basin** — A wall mounted wash basin having an overall width of 530 mm or less.

**2.271 Hardness ( Of Water )** — That property of water, caused by certain mineral matter dissolved in it, which resists the lathering of soap.

**2.272 Hart Top** — A drain fitting consisting of a spigoted hopper and having a rectangular integral top with an opening shaped to receive a rectangular grating and a circular rainwater or waste pipe.

**2.273 Hatch Box** — It is a chamber at the lowest level of the inverted syphon system to clean out the pipes should they become silted up.

**2.274 Haunching** — Outward sloping concrete support to the sides of a pipe or channel above the concrete bedding.

**2.275 Head** — A measure of the potential and kinetic energy of water, expressed as a linear dimension.

**2.276 Hexagonal Nipple** — A short straight pipe fitting having an external taper thread at each end with a raised hexagon centrally situated between the two threaded ends.

**2.277 High Altitudes** — Elevations higher than 1 500 m above mean sea level ( MSL ).

**2.278 High Invert Trap ( Low Back Trap )** — A trap with a vertical inlet in which the level of the outlet invert is high in relation to the inlet.

**2.279 Holder Bat** — A bracket, for fixing to a structure and supporting a pipe and holding it clear of the surface.

**2.280 Hopper ( Gully Inlet )** — A funnel-shaped drain fitting used as a gully component and having a round, or square, rebated inlet to receive a grating or sealed cover, and a spigoted outlet. Gully inlet may have branch inlet.

**2.281 Hopper Head** — A flat or angle backed rainwater head of tapered shape.

**2.282 Hose Union**

- a) A fitting consisting of a coupling nut for screwing to the external thread outlet of a hose union tap and a serrated tail for insertion in bore of a hose.
- b) A detachable coupling for jointing together two lengths of hose.

**2.283 Hose Union Tap** — A bib tap or pillar tap, the nozzle of which has a male thread for the attachment of a hose union.

**2.284 Hospital Sink** — Any sink specially adapted for hospital use.

**2.285 Hot Water Tank** — A vessel for storing hot water under pressure greater than atmospheric pressure.



**2.286 Hydraulic Gradient** — The loss of head in liquid flowing in a pipe or channel expressed per unit length of the pipe or channel.

**2.287 Hydraulic Mean Depth** — A factor used in calculating the rate of flow of a liquid in a pipe or channel. It is obtained by dividing the cross-sectional area of the liquid by the length of the wetted perimeter of the pipe or channel.

**2.288 Hydraulic Ram** — An automatic pumping device which utilizes the energy of a flow of water. The regular sudden closing and reopening of a valve by the flow creates pulses of back pressure which force a proportion of the flow through another valve into an air vessel from which a pipeline delivers to a higher level. A compound hydraulic ram, incorporating a piston as well as valves can pump a supply of water which is not part of the supply used to work the ram.

**2.289 Hydrant** — A device, provided with a flow control valve and a coupling for connecting a stand pipe or a hose pipe, by means of which water can be taken from a water main.

**2.290 Hydrant Box** — A surface box fixed over an underground hydrant.

**2.291 Independent Boiler** — A free standing boiler.

**2.292 Indirect Cylinder** — A closed cylindrical hot water storage vessel in which the stored water is heated by an internal heating element through which hot water is circulated from a boiler or circulator without mixing of the primary and secondary water taking place.

**2.293 Indirect System** — A hot water supply installation in which the water supplied to the draw-off points is heated by means of a calorifier.

**2.294 Induced Siphonage** — The extraction of water from a trap by siphonage set up by reduction of pressure at the outlet of the trap.

**2.295 Infiltration**

- a) The flow or movement of water through the interstices or pores of a soil or other porous medium,
- b) The quantity of ground water that leaks into a pipe through joints, porous walls or breaks,
- c) The entrance of water from the ground into a gallery, and
- d) The absorption of liquid by the soil, either as it falls as precipitation or from a stream flowing over the surface.

**2.296 Inlet, Fresh Air** — A terminal fitted with a flap used to allow air to enter a drainage system. It may have the inlet horizontal or vertical.

**2.297 Inlet Hopper** — A receptacle fitting for receiving refuse from each flat and dropping it into the chute.

**2.298 Inlet Horn** — A socketed projection, which may be either horizontal or vertical, formed on a WC pan or slop hopper for the connection of the flush pipe.

**2.299 Insanitary** — Contrary to sanitary principles. Injurious to health.

**2.300 Insert** — A short piece of rigid pipe for insertion into the ends of a plastic pipe where a compression joint is to be made.

**2.301 Insert Pad**

- a) A block, normally of hardwood or plastics, which is secured to the top of a WC pan rim. Two such pads form a fixed type of WC seat.
- b) A strip, of protective material, fitted to the top edge, or edges, of a sink or slop hopper to prevent damage to the sanitary appliance.

**2.302 Inset Seat ( Pad Seat )** — An alternative to the normal ring-shaped WC seat consisting of two pads of wood, plastics or other impervious material fixed to the top of the WC pan.

**2.303 Isolating Valve** — Any valve fitted for the purpose of shutting off part of a water installation from the remainder.

**2.304 Isotope Test ( Radioactive Test )** — A test for tracing runs of buried pipes, or for locating leaks therefrom, by introducing fluid containing a radioactive isotope and searching with a geiger counter.

**2.305 Inspection Cap ( Access Cap )** — A cap, fitted on a pipe or fitting, which can be removed to enable inspection or cleaning to take place.

**2.306 Inspection Cover** — A removable cover for an inspection chamber.

**2.307 Inspection Eye** — An access opening in a pipe or pipe fitting arranged to facilitate the clearing of obstructions and fitted with a threaded cap or plug or an access cover.

**2.308 Instantaneous Water Heater ( Gas or Electric )** — An appliance in which water is immediately heated as it passes through the appliance.

**2.309 Insulation** — The application of a material which resists the transmission of heat, electricity or sound.

**2.310 Intercepting Trap ( Disconnecting Trap )** — A trap fixed on a drain to prevent the passage of sewer gas into the drain.

**2.311 Intercepting Trap with Reverse Cleaning Arm ( Reverse Action Disconnecting Trap Reverse Action Intercepting Trap )** — An intercepting trap designed to be fixed on the inlet side of an interceptor chamber.

**2.312 Interceptor Manhole ( Interceptor Chamber )** — A manhole incorporating an intercepting trap and providing means of access thereto.

**2.313 Internal Spigot Joint** — A form of eaves gutter jointing which eliminates the projection of external sockets.

**2.314 Invert** — The lowest point of the internal surface of a pipe or channel at any cross section.

**2.315 Inverted Branch** — A branch fitting, for a soil or waste ventilating pipe, on which the branch, which may terminate in either a socket or spigot, is either inclined below the horizontal or is parallel to the main pipe and facing downwards. ( The branch is intended for the connection of a branch ventilation pipe ).

**2.316 Inverted Siphon** — A section of sewer constructed lower than adjacent stretch, to pass beneath valley, watercourse, or other obstruction. It runs full at greater than atmospheric pressure because its crown is depressed below the hydraulic grade line.

**2.317 Jet Outlet Tap** — A tap having a device on its nozzle which can be adjusted by the user to deliver either a jet or a spray of water.

**2.318 Joinder Junction** — A junction pipe in which the branch is manufactured with a closed end designed to be cut off when the branch is required for use.

**2.319 Joint** — The result of joining together two or more parts of a construction.

**2.320 Joint Ring**

- a) An annular gasket used between the two flanges of a flanged joint.
- b) A compressible ( elastomeric ) ring used as the sealing medium in a flexible joint or an expansion joint.

**2.321 Key** — A key provided to enable a person to operate a valve, cock or locking device or to lift a cover.

**2.322 Knuckle Bend** — A short radius bend.

**2.323 Knuckle Joint** — The wiped soldered joint used for joining a brass fitting at right angles to the end of a lead pipe where there is insufficient room for the more normal branch joint.

**2.324 Laboratory Sink** — A sink, of acid-resisting material, with a top edge so shaped as to facilitate bench top fixing.

**2.325 Lagging** — Material used for thermal or acoustic insulation.

**2.326 Lamphole** — A small shaft constructed in the line of a drain or sewer to enable a lamp to be lowered for the purpose of inspection by sighting from a manhole.

**2.327 Land Drain Field Drain ( Agricultural Drain )** — A drain composed of porous, slotted or perforated pipes laid in a trench filled or partly filled with broken aggregate.

**2.328 Large Orifice Air Valve** — An air valve, having an orifice about half the size of the ball, for passing large volumes of air when the pipe is being charged with or emptied of water; it will not open while the pipe is under pressure.

**2.329 Lead Tack** — A lead casting or a piece of sheet lead soldered on to lead pipe and used to secure the pipe to wall by nailing or screwing.

**2.330 Lead Welded Joint** — An autogenous welded joint for lead pipe or sheet made by butting together or lapping the parts of the work and using a blowpipe to fuse them. Where necessary more lead from a filler rod is added to provide the requisite strength.

**2.331 Level In and Level Out Intercepting Tap ( Level Invert Intercepting Trap )** — An intercepting trap in which the invert level of the outlet is at the same level as that of the inlet.

**2.332 Level Invert Taper ( Level Invert Taper Pipe )** — A taper for connecting together pipes having their inverts or soffites in the same straight line.

**2.333 Lever Handled Tap** — A quick action tap which is operated by a lever handle attached to the spindle.

**2.334 Lift and Force Pump** — A pump which combines the duties of both a lift pump and a force pump.

**2.335 Lifting Key** — A key for lifting the cover of a surface box, inspection chamber or manhole.

**2.336 Locking Key** — A key for operating a locking device in a cover.

**2.337 Lock Shield Tap** — A tap with a spindle so shrouded that it can be operated only by a special removable key.

**2.338 Lock Shield Valve** — A valve with a spindle so shrouded that it can only be operated with a special key.

**2.339 Long Arm Branch** — A soil pipe branch fitting with an extended branch.

**2.340 Long Bend** — A soil or drain pipe bend having a socket arm of normal length and a spigot tail usually 826 mm long for connection to a long branch in a range or WC's.

**2.341 Long Branch ( Long Tail Branch )** — A soil or drain single branch fitting of 900 mm effective length designed for use in connection with a range of WC's.

**2.342 Long Screw Connector** — A piece of low carbon steel tube threaded externally at each end, one end having the thread sufficiently long to accommodate a back nut and the full length of a socket. It is used to join together two pieces of steel tube, neither of which can be rotated.

**2.343 Long Tail Bend** — A soil or drain pipe bend having a socketed arm of normal length and a longer spigoted tail.

**2.344 Loose Drop** — A fitting consisting of a short outlet pipe flanged at one end for bolting over a hole cut in a rainwater gutter thus forming a nozzle.

**2.345 Loop Vent**

- a) A continuation of a discharge pipe which is taken up as a vent to connect back into the stack vent or other ventilating pipe.
- b) A branch ventilating pipe or vertical continuation of a discharge pipe which, after being carried above the spillover level of the appliance it serves, is connected back to the top of the drain or to the top of the horizontal section of the discharge pipe as near to the stack connection as is practicable.

**2.346 Loose Socket** — A soil, waste, ventilating or rainwater pipe fitting of the same length as a normal socket for jointing the spigot ends of two pipes in the same alignment.

**2.347 Loss of Head** — The reduction in head which takes place when water flows from one point to another.

**2.348 Low Invert Trap** — A trap with a vertical inlet in which the level of the outlet invert is low in relation to the inlet.

**2.349 Lubricated Plug Valve** — A plug valve in which a lubricant is injected under pressure between the plug face and the body seat to reduce friction.

**2.350 Main ( Water Main )** — A pipe laid by the water undertakers for the purpose of giving a general supply of water as distinct from a supply to individual consumers and includes any apparatus used in connection with such a pipe.

**2.351 Main Soil Pipe** — A pipe connecting one or more branch soil pipe to the drain.

**2.352 Main Soil Waste Pipe ( MSWP )** — A pipe connecting one or more branch soil and waste pipes to the drain.

**2.353 Main Ventilating Pipe ( MVP )** — A pipe which receives a number of branch ventilating pipes.

**2.354 Main Waste Pipe ( MWP )** — A pipe connecting one or more branch waste pipes to the drain.

- 2.355 Male** — That part of a two-part coupling which is enclosed within the female part.
- 2.356 Manhole** — An opening by which a man may enter or leave a drain, a sewer or other closed structure for inspection, cleaning and other maintenance operations, fitted with a suitable cover.
- 2.357 Manhole Chamber** — A chamber constructed on a drain or sewer so as to provide access thereto for inspection, testing or the clearance of obstruction.
- 2.358 Manhole Cover** — A removable cover of manhole.
- 2.359 Manipulative Type Compression Joint** — A compression joint which requires the end of the pipe to be shaped outwards before assembly to enable the pipe fitting to grip the pipe.
- 2.360 Manlid** — A bolted cover for the access opening to a vessel.
- 2.361 Meter** — An apparatus for measuring the quantity of water passing through a pipeline.
- 2.362 Meter Pit** — A chamber for housing a meter, constructed in the ground and surmounted by a surface box or cover.
- 2.363 Mirror Test** — A method of inspecting the interior of a pipeline by means of light reflected by a mirror.
- 2.364 Mixing Valve** — A valve in which separate supplies of hot water and cold water mix together, the outlet temperature in some mixing valves being regulated thermostatically and in others manually.
- 2.365 Moulded Gutter** — An eaves gutter having a flat sole, an upright back and an ornamentally shaped front.
- 2.366 Multi-Branch Fitting** — A standard or special branch fitting with more than one branch.
- 2.367 Multi-Point Heater** — An instantaneous or storage heater designed to deliver hot water at several points.
- 2.368 Normal Working Pressure** — The pressure up to which any pipe, vessel or pump is likely to work normally and is less than the designed working pressure by a safety margin.
- 2.369 Northlight Gutter** — A valley gutter having a flat sole and sides angled to suit the unequal pitches of a northlight roof.
- 2.370 Non-concussive Tap** — Any tap which on opening or closing does not set up water hammer.
- 2.371 Non-manipulative Type Compression Joint** — A compression joint which does not require the end of the pipe to be shaped before assembly

because the pipe fitting is made to grip the outside wall of the plain pipe by means of a compression ring.

**2.372 Nozzle ( Gutter Outlet )**

- a) A gutter fitting consisting of a short length of gutter in which is formed an outlet tail for connection to a rainwater pipe.
- b) The open-ended portion of a draw-off tap, draw-off cock or pump from which water discharges.

**2.373 Offset ( Swanneck )** — A pipe fitting used to connect two pipes whose axes are parallel but not in line.

**2.374 Ogee Gutter** — An eaves gutter having an upright back and a combined sole and front of ogee shape.

**2.375 One Pipe Circulation** — The circulatory flow of a stream of hot water in one direction and a stream of cooler water in the opposite direction at the same time and in the same pipe.

**2.376 One Pipe System** — The plumbing system in which the waste connections from sinks, baths and wash basins and the soil pipe branches are all collected into one main pipe connected directly to the drainage system. Gully traps and waste pipes are completely dispensed with but all the traps of water closets, basins, etc, are completely ventilated to preserve the water seal.

**2.377 Open Front Seat ( Cutaway Front Seat )** — A hinged WC seat shaped like a horseshoe with the gap at the front.

**2.378 'O' Ring Joint** — A spigot and socket joint in which a compressible ( elastomeric ) ring is used as the sealing material.

**2.379 Out Fall** — The discharge point of a pipe or channel conveying sewage or surface water.

**2.380 Overflow**

- a) Flow from an overfilled vessel, sanitary appliance, sewer or chamber.
- b) That part of a vessel, sanitary appliance, sewer or chamber through which overflow is intended to take place.

**2.381 Overflowing Level** — The level at which water in a cistern will first start to overflow either through the overflow pipe, if any, or over the top edge. ( Contrast with spill-over level ).

**2.382 Overflow Pipe** — A pipe connected to a vessel, sanitary appliance, sewer or chamber to discharge overflow.

**2.383 Packed Cock** — Any type of cock in which packing material is used to effect a seal between the plug face and the body seat.

- 2.384 Pan Socket ( Sanitary Socket )** — A large socket on a soil or drain pipe for permitting the entry of a ceramic spigot.
- 2.385 Parallel Branch** — A branch connection having a branch running parallel with the axis of the main pipe in the direction of flow.
- 2.386 Parapet Gutter** — A gutter at the junction of a roof pitch and a parapet wall.
- 2.387 Parasitic Circulation** — In a domestic hot water system, the unwanted circulation of hot water in a pipe circuit, intended to be temporarily inactive, or in a vent pipe.
- 2.388 Partially Separate System** — A modification of the separate system in which part of the surface water is conveyed by foul sewers and drains.
- 2.389 Pass-Over Offset** — A pipe fitting arranged to permit one pipe to pass over another pipe or obstruction.
- 2.390 Pavement Gutter ( Path Pipe Pavement Channel )** — A channel or pipe for conducting surface water from a building across a footway.
- 2.391 Peak Flow** — The maximum rate of a fluctuating flow.
- 2.392 Peak Flow Load** — The maximum discharge which may be expected in a given drainage installation.
- 2.393 Pedestal Wash Basin** — A wash basin supported from the floor by a column shaped base.
- 2.394 Pedestal WC Pan** — A WC pan which has an integral supporting base.
- 2.395 Performance Test** — A test for the stability of trap seals in discharge pipe systems.
- 2.396 Period of Supply** — The period of the day or night during which water supply is made available to the consumer.
- 2.397 Permanent Hardness** — That part of the hardness of water which remains after the water has been boiled.
- 2.398 Pet Cock**
- a) A miniature plug cock fitted on pressure vessels or pump casings for indicating whether there is air or water at the cock level.
  - b) A small plug cock for regulating the rate of flow to an automatic flushing cistern.
- 2.399 Penstock** — A device incorporating a vertically sliding gate for controlling the flow of a liquid in one direction only.



- 2.400 Petrol Interceptor** — A chamber, the outlet of which is fitted with a trapping bend, or a series of such chambers, in which any petrol present in the drains collects on the top of the contained water. Each chamber is vented to air.
- 2.401 Pillar Tap** — A tap, suitable for mounting on a horizontal surface, having a vertical inlet and a nozzle arranged to discharge in a downward direction.
- 2.402 Pipe (Tube)** — A closed conduit for fluid, usually of circular cross section.
- 2.403 Pipe Bracket** — A support which fits around a pipe and has a supporting member for securing to or building into a wall or structure.
- 2.404 Pipe Clip (Saddle Clip)** — A piece of metal or other suitable material made to fit over a pipe and having ears for securing to a wall or other structure.
- 2.405 Pipe Duct** — An enclosure designed to contain one or more services including associated supports and heat and sound insulation.
- 2.406 Pipe Ear** — Two wings cast integrally with the pipe socket provided with holes to take fixing nails or screws.
- 2.407 Pipe Fitting** — Any thing fitted to a pipe for jointing, connecting or changing the direction or bore of a pipe.
- 2.408 Pipe Hanger** — A pipe bracket the support for which is a metal tube or rod normally with provision for adjustment of length and which has a flange or other means of fastening at its upper end for fixing to a structure.
- 2.409 Pipe Interrupter** — A fitting through which water passes and into which air can enter through an annular aperture or through several holes or slits.
- 2.410 Pipe Ring (Pipe Ring, Single Split Pipe Ring)** — A ring shaped clamp made in halves for screwing or bolting together which forms part of an assembly for supporting a pipe. One-half of the ring incorporates an integral socket screwed internally to secure the threaded end of the supporting unit.
- 2.411 Pipe Ring Double** — A pipe ring in which each half has an integral threaded socket thus enabling another pipe ring to be connected to it.
- 2.412 Pipe Union** — A union for connecting together two pipes. It is made in three parts, two of which are for fixing to the pipe ends, the third being a coupling nut.
- 2.413 Pipework** — An installation of pipes and pipe fittings.
- 2.414 Pitcher Cross** — A double branch in which the two opposite branch connections are curved through 90° to join the main pipe.

**2.415 Pitcher Tee ( Sweep Tee Swept Tee )** — A tee in which the branch is curved through 90° to join the main pipe.

**2.416 Plaster Sink** — An arrangement of a sink together with a sediment receiver designed to prevent waste plaster of paris from passing into the drainage system.

**2.417 Plug**

- a) A pipe fitting for stopping up the socket end of a pipe or pipe fitting.
- b) *See 2.702.*

**2.418 Plug Cock** — A taper seated cock in which the plug is retained in the body by means of a washer, screw and nut at the smaller end of the plug.

**2.419 Plug End** — A compression or capillary fitting for stopping up the end of a pipe.

**2.420 Plug Valve** — A valve comprising a body having a parallel or tapered seating into which is fitted a rotatable plug with a waterway through it which can be displaced relative to the waterway through the body and incorporating design features to reduce the friction between the plug face and the body seat and/or seal them against leakage.

**2.421 Plug Waste** — A waste fitted with a removable waste plug.

**2.422 Plumbing**

- a) The pipes, fixtures and other apparatus inside a building for bringing in the water supply and removing the liquid and water borne wastes.
- b) The installation of the foregoing pipes, fixtures and other apparatus.

**2.423 Plumbing System** — The plumbing system shall include the water supply and distribution pipes; plumbing fittings and traps; soil, waste, vent pipes and anti-siphonage pipes; building drains and building sewers including their respective connections, devices and appurtenances within the property lines of the premises, and water-treating or water-using equipment.

**2.424 Plumber's Union ( Boiler Screw, Boiler Union )** — A copper alloy union, one end of which has an internal or external thread and the other a straight or bent tail pipe for wiping to a lead pipe.

**2.425 Plumbing Unit** — A pre-fabricated plumbing assembly of pipes and fittings with a supporting framework.

**2.426 Plumbo-Solvency** — The ability of some waters to dissolve lead.

**2.427 Plunge Bath** — A bath built *in situ* for accommodating one or more persons for ablutionary or medical purposes.

**2.428 Pneumatic Ejector ( Air Displacement Pump Ejector )** — A pump in which liquid flows by gravity into a container which is then emptied by the introduction of compressed air.

**2.429 Pop-Up Waste** — A waste fitted with a captive plug which is seated in, or lifted clear of, the waste by means of a remote manually operated device.

**2.430 Position Head** — The vertical height of water at a given point above a datum.

**2.431 Pot Sink ( Utensil Sink )** — A large metal sink for washing cooking utensils. It is usually fitted with a combined overflow and standing waste in a corner of the sink.

**2.432 Potable Water** — Water which is satisfactory for drinking, culinary and domestic purposes and meets the requirements of the Authority.

**2.433 Pressure Head** — The vertical height of a column of water which would produce at its base, by virtue of its own weight, a pressure equal to that to which the water is actually subjected.

**2.434 Pressure Reducing Valve** — A valve fitted in a pipeline which automatically reduces inlet pressure to a specified outlet pressure.

**2.435 Pressure Relief Valve** — A spring or weight loaded automatic valve for controlling the build up of excessive pressure in pipework or fittings by means of a discharge to atmosphere.

**2.436 Primary Circulation** — The circulation of water in the primary circuit of a hot water system.

**2.437 Primary Circuit** — A circuit in which water circulates between a boiler ( or other water heater ) and a hot water storage vessel.

**2.438 Primary Circuit ( Unvented )** — A primary circuit which is not provided with a vent pipe which is permanently open to the atmosphere.

**2.439 Primary Circuit ( Vented )** — A primary circuit which is provided with a vent pipe permanently open to the atmosphere.

**2.440 Primary Circuit ( Sealed )** — A primary circuit that is not directly connected with a mains water supply. To accommodate expansion water, sealed expansion vessels are used.

**2.441 Private Sewer** — A sewer which is not a public sewer.

**2.442 Process Drain** — A drain intended to convey process or trade wastes only.

**2.443 Probability of Simultaneous Demand ( Diversity Factor ) ( Probability of Simultaneous Discharge )** — A factor used in the design of pipework to determine the maximum rate of flow to allow for in a pipe. Where there is a large number of draw-off points it is improbable that all will be in use at the same time. Similarly, where a large number of outlets discharge into one outlets pipe or channel it is improbable that all will be used at the same time. The diversity factor is the probable rate of flow divided by the possible total rate of flow.

**2.444 P-Trap** — A trap with the inlet vertical and the outlet inclined slightly below the horizontal.

**2.445 Public Sewer** — A sewer vested in a water authority, local authority or other statutory drainage authority.

**2.446 Puddle Flange** — A flange on a pipe, at the point at which it will pass through a water retaining structure, to increase the resistance to leakage along the exterior of the pipe.

**2.447 Puff Ventilation** — The ventilation provided for waste traps in two-pipe system, in order to preserve the water seal.

**2.448 Pump** — A mechanical device for causing a fluid to flow.

**2.449 Pumping Main ( Rising Main )** — A main through which water or sewage is pumped.

**2.450 Quadrant Strainer** — A galvanized mild steel, or stainless steel, strainer plate, curved on plan, for fitting vertically into the corner of a metal sink to prevent the entry of solid matter into the waste pipe. It is fitted with a handle at the top and slides into slots provided inside the sink. Where quadrant strainers are fitted, a standing waste is also used.

**2.451 Quarter Turn Tap** — A tap in which by the rotation of a screwed spindle, a plate or disc is moved at right angles to its plane to cover the tap aperture.

**2.452 Quick Action Tap** — A tap which can be fully opened or shut by less than one complete revolution of the operating spindle.

**2.453 Rafter Bracket** — An eaves gutter support designed for screwing to a rafter.

**2.454 Rainwater Head** — A hopper or box-shaped rainwater fitting used to collect rainwater for discharge into a rainwater pipe.

**2.455 Rainwater Pipe ( Down-Comer ), ( Down Pipe ), ( Fall Pipe ), ( Rainwater Conductor )** — A pipe for conveying rainwater from a roof or other parts of a building.

**2.456 Rain Water Shoe :**

- a) A rainwater fitting at the foot of a rainwater pipe to discharge rainwater into the open air clear of the building surface to which the pipe is fixed.
- b) A drain fitting, fixed horizontally at the foot of a rainwater pipe, having a vertical or horizontal inlet and an inspection opening with either a grating or a sealed cover.

**2.457 Raising Piece ( Gully Riser )** — A fitting for extending the height of a gully or of a rainwater shoe. A gully raising piece may have branch inlets.

**2.458 Ramp** — A short length of a pipeline or channel laid at a considerably steeper gradient than the adjoining portions.

**2.459 Range Boiler** — A boiler fitted as part of a cooking range.

**2.460 Rebated Block Channel** — A block channel with a rebate along each top edge to receive a floor grating.

**2.461 Receiver Diluting** — A vessel, into which a laboratory sink waste pipe discharges. It is arranged so that its contents start to drain only when it is full, thus ensuring that, if a corrosive liquid is emptied into a laboratory sink connected to a diluting receiver, there is a chance of that corrosive liquid being diluted before discharge into the waste pipe or drainage system. Sometimes the outlet is trapped.

**2.462 Recessed Fitting** — A water supply tap or valve of which only the control and shroud are exposed, the remainder being concealed in a recess in the wall.

**2.463 Reciprocating Pump** — A pump in which any liquid is alternately drawn into and expelled from a chamber through non-return valves by the displacing action of a moving member having a reciprocating movement, that is, a linear movement regularly reversing in direction. The moving member may be a bucket, a piston, or a plunger or ram.

**2.464 Reducing Bend** — A reducing fitting from a bigger bore to smaller bore in the form of a bend.

**2.465 Reducing Cross** — A double branch in the form of a reducing fitting.

**2.466 Reducing Elbow** — An elbow in the form of a reducing fitting.

**2.467 Reducing Fitting** — A pipe fitting for connecting together two or more pipes where one or more of the pipes differs in diameter from the others.

**2.468 Reducing Socket** — A socket so shaped as to form an abrupt reduction of bore at the connection of two pipes of different diameters.

- 2.469 Reducing Tee** — A reducing fitting in the form of a tee.
- 2.470 Reflux Valve ( Non-return Valve )** — An automatic valve for preventing reversal of flow, being opened by the flow and closed by the gravity when the flow stops.
- 2.471 Relief Vent** — An additional ventilating pipe connected to a discharge pipe at any point where excessive pressure fluctuation is likely to occur.
- 2.472 Resealing Trap** — A trap designed to retain an effective water seal after relieving negative pressure within the discharge pipework system.
- 2.473 Rest Bend (Duck-Foot Bend)** — A bend, having a foot formed integrally in its base, used to receive a vertical pipe.
- 2.474 Return Pipe** — A pipe in a primary hot water circuit in which water moves back to the boiler, or a pipe in secondary hot water circuit in which water moves back to the hot water storage vessel. ( *See also 2.227* ).
- 2.475 Return Stop-End** — A stop end for a moulded gutter, in which the profile of the gutter is carried round the end of the stop-end.
- 2.476 Rhono** — A half round gutter.
- 2.477 Rigid Joint** — A joint not permitting relative movement between joined parts.
- 2.478 Ring Main** — A system of pipes forming a complete ring into which water is fed at one or more points and from which points of draw-off are supported by flow in two directions.
- 2.479 Ring Seat** — A hinged WC seat in the shape of a ring. It is secured to the WC pan by means of hinges with integral bolts.
- 2.480 Rinsing Sink ( Scalding Sink Sterilizing Sink )** — A metal sink, in which water can be heated and used for the immersion of culinary utensils and table-ware at a temperature high enough to destroy harmful bacteria.
- 2.481 Rising Pipe ( Rising Main )** — A pipe, in a building, through which water rises from the ground level to a storage cistern tank. Sometimes erroneously called a rising main. Contrast with Pumping Main.
- 2.482 Road Gully** — A gully usually installed on the line of, or adjacent to, a road channel to receive surface water.
- 2.483 Rodding** — A method of clearing obstructions from drains and sewers by the use of flexible rods which can be connected together and thrust into the drain or sewer.
- 2.484 Rodding Arm** — A branch of fitting providing access on a pipeline for rodding or clearing obstructions.

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**2.485 Rodding Eye** — An access opening having a removable cover to enable obstructions to be cleared by rodding.

**2.486 Roof Outlet** — A rain water fitting, normally provided with a grating for building into a flat roof to receive rainwater for discharge into a rainwater pipe.

**2.487 Rubble Drain** — A trench or series of trenches dug to falls and partially filled with broken stone or similar coarse material normally used for draining surface water from a building site.

**2.488 Running Trap** — A tubular trap having the inlet and outlet in horizontal alignment.

**2.489 Run Off** — The discharge of water derived from precipitation on a surface.

**2.490 Saddle (Saddle Junction)**

- a) A boss, secured to a pipe by a ring-shaped clamp, used to reinforce the thickness of the pipe where a screwed ferrule is inserted.
- b) A short spigot and socket pipe fitting having a flange moulded on near the spigot end, the flange being curved to fit the outside of a larger pipe into the barrel of which the spigot is connected; it is used for connecting a branch pipe to a drain or sewer.

**2.491 Safe** — A watertight tray fitted under a cistern or sanitary appliance to intercept condensation, spillage or leakage, and sometimes provided with a waste pipe to discharge outside the building.

**2.492 Safety Pipe** — A vent pipe from a domestic boiler (*See also 2.687*).

**2.493 Safety Valve** — A pressure relief valve fitted on or close to a boiler.

**2.494 Sanitary Appliance** — A fixed appliance in which water is used either for cleansing, culinary or drinking purposes before passing to waste, or for the flushing away of foul or waste matter.

**2.495 Sanitary Bend ( Pan Socket Bend )** — A bend with extended arms of equal length, one having a sanitary socket to receive the spigot of a sanitary appliance, for example, a WC pan.

**2.496 Sanitary Branch ( WC Branch WC Junction )** — A branch fitting with an extended straight or bent branch terminating in a sanitary socket to receive the outlet of a 'P' or 'S' trap WC pan respectively.

**2.497 Sanitary Connector ( WC Connector WC Connecting Pipe )** — A short straight discharge pipe with a sanitary socket at one end to receive the outlet of a WC pan.

**NOTE** — A short socketed branch connection, for a branch ventilating pipe, is sometimes provided.

**2.498 Scale** — An accumulation of solid material precipitated out of water containing certain mineral salts in solution and formed on interior surfaces, such as those of pipelines, tanks, boilers, under certain physical conditions. May also be formed from interaction of water with metallic pipe.

**2.499 School-Board Bracket** — A pipe bracket, for fixing to or building into a wall, the outer end being bent into a half circle, with a separate semicircular piece being secured thereto by a single bolt.

**2.500 Screwdown Ferrule** — A bent ferrule, for connection to a water main, embodying a screwdown valve to enable the flow through the ferrule to be stopped.

**2.501 Screwdown Tap** — A tap operated in the same manner as a screw-down valve.

**2.502 Screwdown Valve** — A valve in which, by the rotation of a screwed spindle, a plate or disc is moved at right angles to its plane to close or open the valve aperture.

**2.503 Screwed Boss** — A boss having a male or female thread for the connection of a pipe, fitting or other accessory.

**2.504 Screwed Joint** — A joint between two concentric cylindrical surfaces upon which have been formed matching screw threads. The joint is made by engaging the threads and rotating one or both parts.

**2.505 Screw Plug** — A plug having an external screw thread, intended for sealing the cleaning eye of a trap used with a sanitary appliance.

**2.506 Scum :**

- a) The layer or film of extraneous or foreign matter that rises to the surface of a liquid and is formed there.
- b) A residue deposited on a container or channel at the water surface.
- c) A mass of solid matter that floats on the surface.

**2.507 Scum Board** — A board which projects above and dips below the top water level ( TWL ) of a tank to prevent scum from being carried out with the liquid.

**2.508 Scum Channel** — A channel fitting around a swimming pool at the water line.

**2.509 Sealed Cover** — An inspection cover or manhole cover having an air and water tight joint formed round the periphery.

**2.510 Sealed Expansion Vessel (Flexible Membrane Vessel)** — A vessel usually of welded steel construction into which is fitted a flexible diaphragm dividing it into two compartments, one of which is charged with



nitrogen or air under pressure and the other with water from the heating system. The vessel shall be large enough to take up the expansion volume when the water in the circuit expands.

**2.511 Sealing Plate** — A cover and frame, fitted into the socket of a drain pipe, drain fitting or gully top and level with the ground or floor surface.

**2.512 Seat and Cover** — A WC seat provided with a hinged cover.

**2.513 Secondary Circuit** — A circuit in which water circulates in distributing pipes from and back to a water storage vessel.

**2.514 Secondary Circulation** — The circulation of water in the secondary circuit of a hot water system.

**2.515 Secondary System** — A secondary system comprises the cold water feed pipe, water heater and flow and return pipework from which hot water for use is conveyed to all points of draw-off.

**2.516 Secondary System ( Unvented )** — A secondary system which is not provided with a vent pipe permanently open to the atmosphere.

**2.517 Secondary System ( Vented )** — A secondary system which is provided with a vent pipe permanently open to the atmosphere.

**2.518 Sediment Bucket ( Sediment Pan )** — A removable container for the collection of detritus and oil in a gully.

**2.519 Seepage Pit ( Soakaway, Soak Pit )** — A pit through which effluent is allowed to seep or leach into the surrounding soil.

**2.520 Self-Cleansing Velocity** — The velocity of a flowing liquid in a pipe or channel necessary to prevent the deposition of solids in suspension.

**2.521 Self-Closing Tap** — A tap which is opened by pressure on, or by twisting, the top of the operating spindle and which, when the pressure is released, closes under the action of a spring or of water pressure.

**2.522 Self-Raising Seat ( Balanced Seat Tip-Up Seat )** — A hinged WC seat with balance weights or springs to raise it off the top of the pan when not held down by the user.

**2.523 Self-Siphonage** — The extraction of water from a trap by siphonage set up by the momentum of the discharge from the sanitary appliance to which the trap is attached.

**2.524 Semi-Rotary Pump ( Wing Pump )** — A pump which is operated, usually manually, by the angular displacement of two radial valved vanes working in a circular casing.

**2.525 Separate System** — A system of drains of sewers in which foul water and surface water are conveyed in separate pipes.

- 2.526 Septic Sewage** — A sewage in the condition in which, in the absence of available oxygen, decomposition and the production of substances such as sulphides take place.
- 2.527 Septic Tank** — A single storey settling tank in which the settled sludge is in immediate contact with the sewage flowing through the tank, while organic solids are decomposed by anaerobic bacterial action.
- 2.528 Service Main** — A water main to which service pipes are connected.
- 2.529 Service Pipe** — Pipe that runs between the distribution main in the street and the riser in the case of a multi-storeyed building or the water in the case of an individual house and is subject to water pressure from such main.
- 2.530 Servicing Valve** — A valve intended to facilitate maintenance or servicing of a water fitting or appliance.
- 2.531 Sewage** — Water borne human, domestic and farm waste. It may include trade effluent, subsoil water or surface water.
- 2.532 Sewer** — A pipe or conduit, generally closed, but normally not flowing full for carrying sewage or other waste liquids.
- 2.533 Sewerage ( Sewage System )** — A system of sewers constructed to convey sewage.
- 2.534 Sewer Connection ( Communication )** — The length of pipe between the last manhole or inspection chamber on a drain or private sewer and a public sewer.
- 2.535 Shallow Manhole** — A manhole of such depth that an access shaft to the working chamber is unnecessary.
- 2.536 Shelf Sink** — A ceramic sink with an integral back shelf through which the supply fittings may be mounted.
- 2.537 Shower** — A sanitary appliance consisting of a shower head, and a shower tray.
- 2.538 Shower Head** — A water fitting, for use in a shower, from which water issues as a film or spray.
- 2.539 Shower Rose** — A shower head in which water is caused to flow through a perforated plate and issues as a spray.
- 2.540 Shower Tray ( Shower Receiver )** — A receptacle, which may be prefabricated or formed in situ, for catching water from a shower head.
- 2.541 Shrunk Rubber Ring Joint** — A 'O' ring joint used on certain types of plastics piping, for example PVC, in which, by the application of heat, the socket is shrunk on to the spigot thereby entrapping the rubber ring.

**2.542 Side Entrance Manhole** — A manhole so constructed that the access shaft is not directly over the sewer line and in which access to the sewer is obtained by a passage or an extension to the chamber.

**2.543 Side Outlet Elbow** — An elbow which incorporates a branch for a pipe at 90° to the main pipe.

**2.544 Side Outlet Tee** — A tee which incorporates an additional branch at 90° both to the main pipe and to the leg of the tee.

**2.545 Silencing Pipe** — A short pipe attached to the outlet of a float operated valve ( ball valve ) to convey incoming water below the surface of the water already in a cistern.

**2.546 Single Air Valve** — An air valve with a single chamber having either a small orifice or a large orifice.

**2.547 Single Feed Indirect Cylinder** — An indirect cylinder which requires only 250 mm cistern and feed pipe to supply both the primary and secondary water. The formation of an air seal during filling prevents mixing and accommodates the expansion of the primary water.

**2.548 Single Outlet Combination Tap Assembly** — A combination tap assembly in which hot and cold water mix before they emerge from the nozzle and which requires the hot and cold water to be at balanced pressures.

**2.549 Single Point Heater** — An instantaneous or storage heater designed to deliver hot water at one point for example a sink water heater or a bath water heater.

**2.550 Single Stack System** — One pipe system without trap ventilation pipe work.

**2.551 Sink** — A sanitary appliance used for receiving domestic, culinary, laboratory or industrial process liquids.

**2.552 Siphon** — An apparatus for effecting siphonage.

**2.553 Siphonage** — A suction, created by the flow of liquid in pipes by a pressure less than atmospheric.

**2.554 Siphonic WC Pan** — A WC pan in which the excrement falls into the water in the trap and is subsequently removed by siphonic action induced by the flushing water.

**2.555 Sitz Bath** — A bath in which a bather sits as in a chair.

**2.556 Slab Urinal** — A urinal consisting of a flat impervious slab fixed on a wall, the discharge from which is directed into a floor channel fitted immediately beneath the slab. When slab urinals are fixed in ranges division slabs may be provided to ensure privacy.

**2.557 Sleeve** — A length of pipe built into the fabric of a building to allow for the passing through of another pipe, thus giving protection and allowing for relative movement.

**2.558 Slop Hopper ( Slop Sink )** — A hopper-shaped sink, with a flushing rim and outlet similar to those of a WC pan, for the reception and discharge of human excreta.

**2.559 Slot Overflow** — An overflow, the inlet of which is in the form of a slot.

**2.560 Slotted Waste** — A waste, which has two or three horizontal slots, at one level, in its wall to admit into its bore any effluent from the appliance which has passed through the appliance's overflow.

**2.561 Sludge :**

- a) The accumulated solids separated from liquids, such as water or wastewater, during processing, or deposits on bottoms of streams or other bodies of water.
- b) The precipitate resulting from chemical treatment, coagulation or sedimentation of water or waste water.

**2.562 Sludge Valve** — A valve used for the drawing off sediments from the bottom of cisterns or tank.

**2.563 Sluice Valve** — A gate valve for use in water supply for pipes of 50 mm nominal diameter and greater.

**2.564 Small Orifice Air Valve** — An air valve, having an orifice very small in relation to the ball, which opens if air under pressure accumulates in the chamber and closes again after the air is discharged.

**2.565 Smoke Test** — A test for the soundness of drainage systems and discharge pipe systems, and for locating leaks therefrom by applying smoke under pressure internally.

**2.566 Soakaway** — A pit, dug into permeable ground lined to form a covered perforated chamber or filled with hard-core, to which liquid is led, and from which it may soak away into the ground.

**2.567 Socket :**

- a) The end of a pipe, or pipe fitting, having an enlarged bore for the reception of the plain or spigot end of another pipe, or pipe fitting, for the formation of a spigot and socket joint.
- b) A pipe fitting in the form of a short cylindrical pipe, threaded on its inner surface, used for jointing together two pipes with externally threaded ends.

**2.568 Socket Ferrule** — A fitting for a drain or soil pipe consisting of a short piece of pipe with a spigot at one end, the other end being fitted with a screwed inspection plate.

**2.569 Socket Reducer** — A reducing fitting, for use with discharge pipes, which fits inside the socket of the larger pipe, thus adapting the socket to receive the spigot of a smaller pipe.

**2.570 Soffit ( Crown )** — The highest point of the internal surface of a sewer or culvert at any cross-section.

**2.571 Soil** — The discharge from water closets, urinals, slop hoppers, stable yard or cowshed gullies and similar appliances.

**2.572 Soil Appliance** — A sanitary appliance for the reception and discharge of excretory matter.

**2.573 Soil Pipe :**

- a) In plumbing, a pipe that conveys the discharge of water closets or fixtures having similar functions, with or without the discharges from other fixtures.
- b) A standard type of bell-and-spigot cast iron pipe of limited strength.

**2.574 Soldered End** — The end of a lead pipe which had been sealed with solder and wired.

**2.575 Solenoid Operated Valve** — A valve adapted for electrical remote control and actuated by a solenoid.

**2.576 Solvent Welded Joint** — A joint made on certain types of plastics piping, in which the surface which are to be in contact in a closely fitting spigot and socket are separately smeared with a solvent, after which the spigot is inserted in the socket, whereupon the two become fused.

**2.577 Sparge Pipe** — A horizontal pipe having perforations through which water is sprayed for cleansing purposes, for example, on to a slab type urinal.

**2.578 Spigot** — The plain, or locally thickened, end of a pipe for insertion in a socket for the formation of a spigot and socket joint.

**2.579 Spigot and Socket Joint** — A joint for pipes and channels in which the plain end, or spigot, of one section is inserted into the enlarged end, or socket, formed on the next section. The space between the spigot and socket is filled with jointing material or is sealed with a joint ring.

**2.580 Spill Over Level** — The level at which water in a sanitary appliance or cistern will first spill over if the inflow exceeds the outflow through the outlet and any overflow.

- 2.581 Splashback** — An independent area of impervious material used to protect the wall surface adjacent to wash basin, sink, bath or shower.
- 2.582 Splash Screen** — A sheet of impervious material, usually glass, mounted above a urinal channel or in front of a surgeon's scrub to protect the user.
- 2.583 Split Collar** — A collar cast in two pieces and bolted together along the longitudinal axis of the fitting.
- 2.584 Spray Mixing Tap** — A tap, supplied with hot and cold water and incorporating a mixing device operated by the user. The mixed water is delivered at a restricted rate of flow in the form of a spray.
- 2.585 Spray Outlet** — A fitting incorporating a perforated plate, which is attached to the outlet of a tap, mixing valve or pipe and which causes water passing through it to break up into a spray.
- 2.586 Spray Tap** — A tap supplied with water at a pre-determined temperatures which it delivers at a restricted rate of flow in the form of a spray.
- 2.587 Spreader** — A fitting attached to the end of a urinal flush pipe and having a slotted outlet, in order to spread the water over the urinal surface.
- 2.588 Spring ( Spring Bend )** — A pipe fitting being an obtuse bend formed of steel tube.
- 2.589 Spun Lead ( Lead Wool )** — Lead prepared in long filaments twisted together like yarn and used for cold caulking.
- 2.590 Squatting Plate** — A raised tread for a squatting WC pan.
- 2.591 Squatting WC Pan** — A WC pan with an elongated bowl for installation with its top edge at or near floor level so that the user has to adopt a squatting position.
- 2.592 Stack Vent** — The extension of a vertical discharge pipe above the highest branch soil or waste pipe connection, for terminating in an end open to atmosphere.
- 2.593 Stall Urinal** — A urinal having a back curved on plan to form a stall for the user. It has an integral floor channel. When stall urinals are fixed in ranges, cloaking pieces are provided between each stall.
- 2.594 Standing Overflow** — An overflow pipe, consisting of a vertical tube, standing in a cistern and passing through its base.
- 2.595 Standing Waste** — A combined waste plug and overflow for a sink or wash basin, consisting of a tube at the bottom end of which is formed a taper for plugging the waste of the sanitary appliance. The top end of the tube terminates a short distance below the spill-over level of the sanitary appliance, thus forming an overflow leading to the waste pipe.

**2.596 Stand Pipe**

- a) A rigidly supported vertical length of pipe emerging from the ground and terminating with a draw-off tap, serving as an outdoor water supply point.
- b) A portable pipe fitting for fixing in a vertical position on a hydrant to enable water to be drawn off, either directly or through hose piping attached to the top of the standpipe.

**2.597 Static Head** — The pressure head when the water is at rest.

**2.598 Step-Iron** — A step, usually of malleable iron, either straight for building into corners, or horse-shoe shaped for building into walls, of manholes to give, with others in series, access from the surface.

**2.599 Stop-Cock** — A cock fitted in a pipe line for controlling the flow of water.

**2.600 Stop-End** — A terminal piece of sealing the end of a channel or gutter.

**2.601 Stop-end Outlet**

- a) A drop-end.
- b) A terminal piece in a channel having an outlet in the invert.

**2.602 Stopper** — A device for closing an orifice.

**2.603 Stop-Valve ( Stop Tap )** — A valve, other than a servicing valve, fitted in a pipeline for controlling the flow of water. Contrast with stop cock.

**2.604 Stop-Valve Guard** — A pipe slotted at one end or an assembly of interlocking blocks, placed vertically over an underground stop-valve and supporting a surface box to give access to the stop-valve for the hand or a valve key.

**2.605 Storage Cistern** — A cistern for storing water.

**2.606 Storage Water Heater**

- a) A gas or electric self-contained water heating appliance in which a volume of water is heated under thermostatic control and stored for use until required. With an electric heater the feed cistern may not be integral with the heater.
- b) A thermally insulated vessel in which water is heated and held for subsequent use.

**2.607 Strainer** — A device for separating solid matter from liquid to prevent it from entering a pump, valve, tap, meter or pipework.

**2.608 Strainer Bucket** — A drain conveying subsoil water.

**2.609 'S' Trap** — A trap in which the outlet leg is parallel with the inlet leg.

**2.610 Subsoil water Drain**

- a) A drain intended to collect and carry away subsoil water.
- b) A drain intended to disperse into the subsoil the effluent from a septic tank.

**2.611 Subsoil Water** — Water occurring naturally in the subsoil.

**2.612 Subway (Undercroft)** — An underground passage or duct to accommodate services and large enough to walk through.

**2.613 Subzero Temperature Region** — Regions where temperatures fall below 0°C and freezing conditions occur.

**2.614 Sump**

- a) That position of a WC or gully that is below the invert level of the outlet.
- b) A pit formed in the floor of a structure, or sunk below the general base of an excavation, to collect unwanted water for the purpose of facilitating its removal.
- c) The chamber in a pumping installation which receives the flow to be pumped and from which the pump suction pipe draws.

**2.615 Suction Pipe** — A length of pipe fixed to the inlet of a pump to enable water to rise up to the pump from a lower level under the action of atmospheric pressure when the pump is operating.

**2.616 Supply Pipe** — So much of any service pipe as is not a communication pipe.

**2.617 Surcharge** — Excess flow in a drain or sewer when the normal flow capacity is exceeded, caused by an increase in hydraulic gradient.

**2.618 Surface Box** — A deep metal frame, with a cover fixed in the ground with the lid level with the surface, to give access to an underground fitting such as a valve or hydrant.

**2.619 Surface Water** — Natural water from the ground surface, paved areas and roofs.

**2.620 Surface Water Drain** — A drain conveying surface water including storm water.

**2.621 Surface Water Sewer** — A sewer intended to convey surface water only including storm water.

**2.622 Surgeon's Basin** — A large wash basin, where a surgeon can wash in running water supplied from a surgeon's tap.



**2.623 Surgeon's Scrub ( Surgeon's Wash Up )** — A special washing place, for surgeons, immediately adjoining a hospital operating theatre.

**2.624 Surgeon's Trough** — A surgeon's basin which can be used by more than one surgeon at a time.

**2.625 Swanneck**

- a) A short bent delivery pipe attached to the outlet of a tap.
- b) *See 2.373.*

**2.626 Swivel Ferrule** — A bent ferrule, for connection to a water main, embodying a swivel part which enables the service pipe to lead off at any desired angle to the main.

**2.627 Swivel Joint** — A joint between a fixed part and a movable part, which permits rotary movement about the common axis of the parts.

**2.628 System of Discharge Pipe Work** — An arrangement of discharge and ventilating pipework in one of the following forms ; two-pipe system, one-pipe system or single-stack system.

**2.629 System of Drainage ( Drainage System )** — An arrangement of drains or sewers in one of the following forms : combined system, separate system or partially separate system.

**2.630 System of Hot Water Supply** — A hot water supply installation of either the direct or indirect type.

**2.631 Taft Joint** — A soldered joint, for lead or lead alloy pipe, made by shaping and fitting the pipe ends to form a taper entering a bellmouth, melting in solder and shaping with a wiping cloth.

**2.632 Tail-Piece ( Ferrule Sleeve )** — A hard metal sleeve, one end of which is for jointing to the end of a soft metal pipe and the other end of which is for insertion into a socket to enable a joint to be made.

**2.633 Tail Pipe** — That part of a union coupling which is a short straight or bent pipe with an integral collar at one end for engagement by the coupling nut, the other end being plain.

**2.634 Tank**

- a) A fixed container for storing sewage.
- b) The common term for a large capacity storage cistern.

**2.635 Tap**

- a) A tool used for cutting inside threads. Also to bore a hole into a pipe, tank or other device.
- b) A valve with a free outlet used as a draw-off or delivery point.

- 2.636 Tap Boss** — A fitting with a female thread at one end to receive the screwed shank of a bib tap, the other end having a plain tail for connecting to a pipe.
- 2.637 Taper ( Taper Pipe )** — A pipe fitting, having a uniform reduction in diameter over its effective length, for connecting together two pipes of different diameters.
- 2.638 Taper Channel** — A fitting of semi-circular cross section, having a uniform change in diameter over its length, for connecting together to channels or pipes of different diameter.
- 2.639 Taper Clearing Bend** — A pipe fitting, consisting of a slow bend with an enlarged opening to facilitate rodding, for use at the uppermost end of a run of drain pipe.
- 2.640 Taphole Stopper** — A stopper for fitting into an unwanted vent horn on a WC pan.
- 2.641 Tee** — A branch fitting used to connect to a main pipe a branch pipe which is at an angle of  $90^\circ$  to the main pipe.
- 2.642 Temporary Hardness** — That part of the hardness of water which can be removed by boiling, when part of the mineral content is precipitated as solid matter.
- 2.643 Terminal Anti-Vacuum Valve** — A fitting through which water does not normally flow having air entry apertures which are closed when the installation is under positive pressures. The air entry apertures open to atmospheric pressure on an application of a partial vacuum in the connected pipework and limit the magnitude of the negative pressure.
- 2.644 Test Pressure** — The air pressure or water pressure applied internally to pipes and fittings when they are being tested for air and water tightness.
- 2.645 Tests ( On Pipe Systems )** — The proving of the soundness or the adequacy of pipe systems, or the tracing of such systems.
- 2.646 Thawing** — The melting of ice or snow by heat.
- 2.647 Thermal Insulation** — Insulation to resist the transmission of heat.
- 2.648 Thermostatic Mixing Valve** — A mixing valve which automatically ensures that mixed water at the outlet is maintained at a pre-selected temperature.
- 2.649 Thimble** — A brass or copper spigot and socket pipe fitting, either straight or bent, for enabling a lead or copper pipe to be jointed to the outlet of a ceramic sanitary appliance or a metallic discharge pipe.
- 2.650 Three-Quarter Round Channel** — A fitting of three-quarter circular cross section, used in the construction of manholes for turning the branch flow into the direction of the main flow.

- 2.651 Tip Up Basin** — A wash basin mounted on pivots so that it can be emptied by tilting.
- 2.652 Toby** — An underground stopcock or stopvalve fitted on a service pipe.
- 2.653 Toilet** — A room in which are installed WC suits and/or urinals with or without wash basins.
- 2.654 Tongue Tee ( Lip Tee )** — A tee having an internal projection so placed as to divert part of the flow from the main pipe into the branch pipe.
- 2.655 Total Hardness** — The sum of the temporary hardness and the permanent hardness of water.
- 2.656 Trade Effluent** — Any liquid either with or without particles of matter in suspension which is wholly or in part produced in the course of any trade or industry, at trade premises. It includes farm wastes but does not include domestic sewage.
- 2.657 Trap** — A fitting or device so designed and constructed as to provide, when properly vented, a liquid seal which will prevent the back passage of air without materially affecting the flow of sewage or waste water through it.
- 2.658 Trapped Gully** — A gully with a water seal.
- 2.659 Trapping Bend** — An unsocketed 90° bend, with one long arm for use as a dip pipe in, for example, a petrol intercepting trap.
- 2.660 Trap Ventilating Pipe ( Anti-siphon Pipe )** — A ventilating pipe connected adjacent to the outlet side of a trap seal.
- 2.661 Tread Plate — ( Tread )**
- a) Glazed ceramic, or other hard wearing edging to the floor finish contiguous to the channel of a urinal.
  - b) Glazed ceramic, or other hard wearing non-slip footrests on each side of a squatting WC pan.
- 2.662 Treatment Bath** — A bath in which one or more persons may receive hydrotherapy.
- 2.663 Trench** — A temporary excavation to accommodate services and then to be refilled.
- 2.664 Trough Urinal** — A urinal in the form of a trough.
- 2.665 Tub and Sink Set** — A combination of a sink, of normal depth for use for kitchen purposes, and a wash tub. The set may be made in one piece.

- 2.666 Tubulars** — Bends, longscrews and barrel nipples made of steel tube.
- 2.667 Tunnel Shower** — A form of shower consisting of a passageway with impervious walls and a drained floor and having a succession of shower heads, or a sparge pipe, along its length controlled by one or more mixing valves.
- 2.668 Two-Piece WC Pan** — A WC pan made with the bowl and trap as separate in pieces which can be assembled with the trap outlet discharging in any required direction plan.
- 2.669 Two Pipe System** — A discharge pipe system comprising two independent discharge pipes one of which conveys soil directly to the drain the other conveying waste water to the drain through a trapped gully. The system may also require ventilating pipes.
- 2.670 Underhand Joint** — The wiped soldered joint used to join two horizontal pipes *in situ*.
- 2.671 Union**
- a) A pipe fitting used for joining the ends of two pipes neither of which can be turned.
  - b) A three piece coupling, two pieces of which are jointed to the pipe or fittings to be jointed, the whole being then assembled by means of a screwed coupling nut.
- 2.672 Union Clip** — A double socketed rainwater fitting for connecting together two spigot ends of rainwater gutter in alignment.
- 2.673 Untrapped Gully** — A gully without a water seal.
- 2.674 Unvented Water Heater** — A water heater which connects hydraulically to atmosphere only at a point of discharge of hot water when a draw-off tap or other fitting is opened, at which time the pressure within the water heater may or may not drop significantly. These appliances are not provided with a vent permanently open to the atmosphere.
- 2.675 Upright Joint** — The wiped soldered joint used to join two vertical pipes *in situ*.
- 2.676 Urinal Connector** — A pipe fitting consisting of a short piece of cast iron pipe with a female thread at one end to receive the threaded tail of a urinal waste fitting, the other end being spigoted for connecting to the inlet of a trap.
- 2.677 Utilidor** — Large insulated or heated conduits used for housing water piping, in some instances waste water piping.
- 2.678 Valley Gutter ( Centre Gutter )** — A roof gutter having a flat sole and two sides angled to suit the slopes of adjacent pitched roofs.

**2.679 Valve** — A device for regulating the flow of a fluid, having an aperture which can be wholly or partially closed by the movement relative to a seating of a component in the form of a plate or disc, a diaphragm, a door or gate, a piston, a plug or a ball.

**2.680 Valve Key** — A key for operating a valve or cock.

**2.681 Vanity Basin ( Counter Top Basin )** — A wash basin designed specifically for installing into or forming the top of a vanity unit ( *see also 2.682* ).

**2.682 Vanity Unit** — A unit comprising a wash basin and surrounding often having an integral cupboard and/or drawers underneath.

**2.683 Velocity Head** — The vertical height through which a fall under the influence of gravity alone would give the water a velocity equal to its actual velocity.

**2.684 Ventilating Pipe** — A pipe in a sanitary pipework system which facilitates the circulation of air within the system and protects trap seals from excessive pressure fluctuation.

**2.685 Vent Horn** — A short socketed branch formed on the outlet of a WC pan or slop hopper for the connection of an anti-siphon pipe.

**2.686 Vent Horn Stopper ( Vent Stopper )** — A stopper for fitting into an unwanted vent horn on WC pan.

**2.687 Vent Pipe** — An open ended pipe, in a hot water apparatus, for the escape of air and for the safe discharge of any steam generated.

**2.688 Vent Shaft ( Ventilating Shaft )** — A ventilating pipe for ventilating a sewerage system.

**2.689 Vent Stack** — *See 2.684.*

**2.690 Venturi Meter** — A device for measuring the flow of liquid in pipeline or channel which makes use of the 'venturi' principle, that when liquid flows through a suitably tapered pipe or channel to a throat interposed in a system, the amount by which the pressure head had been reduced at the throat bears a relation to the rate of flow. The meter may be arranged to indicate the rate of flow, integrate and record it on a time chart.

**2.691 Vertical Pipe** — Any pipe which is installed in a vertical position or which makes an angle of not more than 45° with the vertical.

**2.692 Walk Trough Foot Bath** — A shallow bath in which a constant water level is maintained and through which users walk to cleanse their feet before entering, for example, a swimming pool.

**2.693 Wall Hung WC Pan** — A WC pan suspended clear of the floor and commonly supported by a chair or concealed brackets.

**2.694 Warning Pipe** — An overflow pipe so fixed that its outlet, whether inside or outside a building, is in a conspicuous position where the discharge of any water therefrom can be readily seen.

**2.695 Wash Basin (Lavoratory Basin)** — A sanitary appliance primarily intended for washing the upper parts of the body. It has a waste connection and a piped water supply.

**2.696 Wash Down WC Pan** — A WC pan in which the excrement falls into the water in the trap and is subsequently removed by the momentum of the flushing water.

**2.697 Wash Out WC Pan** — A WC pan in which the excrement falls into a shallow water filled bowl which is subsequently emptied into and through a trap by the momentum of the flushing water.

**2.698 Waste**

- a) A liquid that is discharged by the waste pipe.
- b) A fitting that is intended to couple together in a watertight manner a waste appliance or a urinal and the waste or soil pipe which conducts from the appliance.

**2.699 Waste Appliance** — A sanitary appliance for the reception of water for ablutionary, cleansing or culinary purposes and its discharge after use.

**2.700 Waste Disposal Unit** — An electrically operated mechanical device for reducing kitchen refuse into fragments small enough to be flushed into the drainage system.

**2.701 Waste Pipe** — In plumbing, any pipe that receives the discharge of any fixtures, except water closets or similar fixtures and conveys the same to the house drain or soil or waste stack. When such pipe does not connect directly with a house drain or soil stack, it is called an indirect waste pipe.

**2.702 Waste Plug (Plug)** — A tapered stopper which, when in position, prevents the flow of water through the waste. Its upper surface may have a suitable loose shackle for securing a plug chain.

**2.703 Waste Stabilisation Ponds** — Waste stabilization ponds of the facultative type are shallow basins, usually 1 to 1.5 m deep, which are used for the treatment of sewage, involving the action of bacterial and algae in the presence of sunlight. These ponds are predominantly aerobic in the upper layers and anaerobic in the lower layers.

**2.704 Waste Water** — The discharge from wash basins, sinks and similar appliances, which does not contain human excreta.

**2.705 Water Closet** — A water flushed plumbing fixture designed to receive human excrement directly from the user of the fixture. The term is used sometimes to designate the room or compartment in which the fixture is placed.

**2.706 Water Fitting** — Anything fitted or fixed in connection with the supply, measurement, control, distribution and utilization of water.

**2.707 Water Hammer ( Concussion Reverberation )** — A hammering sound caused by violent surges of pressure in water pipes.

**2.708 Water Heater** — A device for heating water.

**2.709 Water Jacketed Tube Heater** — An appliance in which water is heated while it flows through a tube or coil which is immersed in a reservoir or hot water. The reservoir is maintained at a pre-determined temperature and is usually a vessel with a surface vented to atmosphere.

**2.710 Water Line** — A line marked inside a cistern to indicate the highest water level at which the supply valve should be adjusted to shut off.

**2.711 Water Outlet** — A water outlet, as used in connection with the water distributing system, is the discharge opening for the water (a) to a fitting; (b) to atmospheric pressure (except into an open tank which is part of the water supply system); (c) to any water-opened device or equipment requiring water to operate.

**2.712 Water Seal ( Seal Trap Seal )** — The water in a trap which acts as a barrier to the passage of air through the trap.

**2.713 Water Service ( Water Installation Water Supply )** — A system of pipes, fittings and connected appliances in any individual premises.

**2.714 Water Supply System** — Water supply system of a building or premises consists of the water service pipe, the water-distribution pipes, and the necessary connecting pipes, fittings, control valves, and all appurtenances in or adjacent to the building or premises.

**2.715 Water Test ( Hydraulic Test )** — A test for the soundness of water and drainage systems by applying water pressure internally.

**2.716 Water Waste Preventor ( Obsolescent )** — A flushing cistern of the valve-less type.

**2.717 Water Way** — The cross-sectional area at any point in a pipe, channel or fitting through which water or any other fluid can flow.

**2.718 Water Works** — Water works for public water supply include a lake, river, spring, well, pump with or without motor and accessories, reservoir, cistern tank, duct whether covered or open sluice, water main, pipe, culvert, engine and any machinery, land, building or a thing for supply or used for storing, treating and supplying water.

**2.719 WC Pan ( WC Bowl )** — A sanitary appliance, for the reception and flushing away of human solid and liquid excrement, consisting of a bowl with an inlet for flushing water and a trapped outlet.

**2.720 WC Seat** — A seat of impervious material made to fit the top of WC pan.

**2.721 WC Suite** — A sanitary appliance consisting of a WC pan seat, flushing apparatus and any necessary flush pipe.

**2.722 Weir Penstock** — A penstock arranged so that water flows over the top of the gate.

**2.723 Weir Overflow** — Of a sanitary appliance. An overflow the inlet of which is in the form of a weir, arranged so that the water-way leading from it is accessible for cleaning through most of its length.

**2.724 Welded Joint** — A joint for metals or plastics in which the parts are fused together by being heated to a critical temperature with or without the addition of molten or softened material from a filler rod. Contrast with solvent welded joint.

**2.725 Wetted Perimeter** — The line of contact between a pipe or channel, and the liquid flowing therein, at a cross section.

**2.726 Wet Venting** — The use of the lower portion of a ventilating pipe, as a waste pipe in a discharge system.

**2.727 Wet Well (Suction Well)** — The chamber in a pumping installation which receives the flow to be pumped and from which the pumping suction pipe draws.

**2.728 Whole Insulation Backflow Prevention** — The provision of measures additional to any backflow prevention devices installed at the points of use of water in a water service, to prevent backflow from any one water service to another service or a main or within a water service. Components are anti-vacuum valves, check valves or vent pipes suitably sized and arranged according to whether the pipework is under mains or cistern pressure.

**2.729 Wiped Soldered Joint** — A joint, for lead or lead alloy pipe, in which the parts to be jointed are prepared, shaped and fitted together. Molten plumbers' solder is then poured on and manipulated with the aid of a pad of special cloth with which the cooling solder is wiped around the pipe to give the shape and volume required for the strength of the joint.

**2.730 Wire Balloon** — A bulbous-shaped wire guard for fixing either at the head of a ventilating pipe to prevent birds from nesting therein, or in a gutter outlet to reduce the likelihood of stoppage.

**2.731 Working Head** — The head of water at which a pipe, vessel or pump is designed to work.

**2.732 Working Pressure** — The pressure at which a pipe, vessel or pump is designed to work.



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**2.733 Wrist Action Tap** — A quarter turn tap with a short lever handle which can be operated by the wrist.

**2.734 Yard Gully ( Grease Gully Mud Gully Stable Yard Gully )** — A trapped gully provided with a grating and a sediment pan.

**2.735 Y Branch ( Y Junction )** — A branch fitting in the shape of a letter Y.

**2.736 Yoke Vent ( Cross Vent )** — A short relief vent between the main soil or waste pipe and a main ventilating pipe.