

AS/NZS 3500.0:2021



Australian/New Zealand Standard™

Plumbing and drainage

Part 0: Glossary of terms



AS/NZS 3500.0:2021

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- Association of Hydraulic Services Consultants Australia
- Australian Building Codes Board
- Australian Industry Group
- Australian Stainless Steel Development Association
- Backflow Prevention Association of Australia
- Engineers Australia
- Hydraulic Consultants Association Australasia
- International Copper Association Australia
- Master Plumbers Australia
- Master Plumbers, Gasfitters and Drainlayers New Zealand
- Ministry of Business, Innovation and Employment (NZ)
- Plastics Industry Pipe Association of Australia
- Plastics New Zealand
- Plumbers, Gasfitters and Drainlayers Board (NZ)
- Plumbing Distributors Association of New Zealand
- Plumbing Products Industry Group
- The Institute of Plumbing Australia
- Water New Zealand
- Water Services Association of Australia

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Plumbing and drainage

Part 0: Glossary of terms

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Preface

This Standard was prepared by the joint Standards Australia/Standards New Zealand Committee WS-014, Plumbing and Drainage, to supersede AS/NZS 3500.0—2003, *Plumbing and Drainage, Part 0: Glossary of terms*.

The objective of this document is to specify the common plumbing and drainage terms and associated definitions that are used in areas of the plumbing and drainage sector including product manufacturing specifications, design and installation standards (such as the AS/NZS 3500 series) and regulatory documents.

This revision was conducted to ensure consistency between other documents and incorporate amendments and additions arising from industry requirements.

A list of all parts in the AS/NZS 3500 series for plumbing and drainage can be found in the Standards Australia and Standards New Zealand online catalogues.

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NOTES

Australian/New Zealand Standard

Plumbing and drainage

Part 0: Glossary of terms

1 Scope

This document specifies common plumbing and drainage terms and associated definitions used in the plumbing and drainage sector including product manufacturing specifications, design and installation standards (such as the AS/NZS 3500 series) and regulatory documents.

It is primarily intended for the general water and waste industries and for use in the interpretation of terminology used in the various parts of the AS/NZS 3500 series.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

3A.1

ablution trough

See *trough* ([3T.42.1](#))

3A.2

absorber

See *solar water heater—terms* ([3S.105.1](#))

3A.3

absorption pit

soakaway

pit, trench or well dug into permeable ground, filled with broken stone, bricks or large granular material and usually covered with earth, where liquid may soak away into the ground

3A.4

absorption test

See *test* ([3T.14.1](#))

3A.5

access chamber

See *chamber* ([3C.14.1](#))

3A.6

access cover

See *cover* ([3C.73.1](#))

3A.7

access fitting

See *fitting* ([3F.22.1](#))

3A.8

access opening

opening in a building element, fitted with a removable cover, to allow maintenance of a concealed pipe, fixture or other apparatus

3A.9

access pipe

See *pipe* ([3P.17.1](#))

3A.10**access point**

place where access may be made to a drain for inspection, cleaning or maintenance; may include an inspection point, rodding point, inspection chamber or access chamber

3A.11**accessible**

capable of being reached for the purposes of inspection, maintenance, repair, or replacement, but may first require removal of an access panel, cover, door or similar obstruction

See also *readily accessible* ([3R.5](#))

3A.12**adaptor fitting**

See *fitting* ([3F.22.2](#))

3A.13**aeration system**

system designed to treat liquid waste by the processes of air injection

3A.14**aerator**

device to introduce air into the flow of a liquid

3A.15**aerobic**

state where free oxygen is present

3A.16**aerobic treatment system**

See *aeration system* ([3A.13](#))

3A.17**against-pitch installation**

See *solar water heater — terms* ([3S.105.2](#))

3A.18**air admittance valve**

See *valve* ([3V.5.1](#))

3A.19**air chamber**

See *chamber* ([3C.14.2](#))

3A.20**air cooling equipment**

See *cooling equipment* ([3C.68.1](#))

3A.21**air eliminator**

device which opens to release accumulated air from a hydraulic system and automatically closes in the presence of a liquid

3A.22**air gap**

<sanitary plumbing system> unobstructed vertical distance through the free atmosphere between the outlet of a discharge or waste pipe and the overflow level of the receptacle into which it is discharging

<water supply system> unobstructed vertical distance through the free atmosphere between the lowest opening of a water service pipe or fixed outlet supplying water to a fixture or receptacle and the highest possible water level of such fixture or receptacle

3A.23**air separation distance**

distance between the outlet of the inlet valve and the spill level

3A.24**air test**

See *test* ([3T.14.2](#))

3A.25**air valve**

See *valve* ([3V.5.2](#))

3A.26**air venting**

allowing air to enter or escape from a confined space to facilitate movement

3A.27**airlift**

method of raising liquid by the injection of compressed air

3A.27.1**airlift pump**

See *pump* ([3P.67.1](#))

3A.28**airlock**

<1> airspace with doors separating a water closet or urinal apartment and an adjacent room

<2> air in a pipe that stops the flow of liquid in a pumping or gravity circuit

3A.29**allowable maximum operating pressure**

See *pressure* ([3P.45.8](#))

3A.30**allowable test pressure**

See *pressure* ([3P.45.2](#))

3A.31**alteration**

addition or extension

3A.32**anaerobic**

state where free oxygen is absent

3A.33**anchor blocks****thrust blocks**

blocks, usually of concrete, placed at intervals and at changes of direction along a pipeline to prevent pipe movement

3A.34**anchorage**

means of preventing movement of pipes or fittings that are subject to unbalanced forces

3A.35**angle of fitting**

See *fitting* ([3F.22.4](#))

3A.36**angle of inclination**

See *solar water heater* — terms ([3S.105](#))

3A.37**annual exceedance probability****AEP**

probability that a given total (quantity) of rainfall, accumulated over a given duration, will be exceeded in any one year

Note 1 to entry: AEP is expressed as a percentage, which may be an intensity (mm/h) or a depth of rainfall (mm). AEP is based on statistical analysis of rainfall records.

3A.38**anode**

negative electrode of a galvanic couple that corrodes preferentially to the positive electrode (cathode)

3A.39**appliance**

equipment designed to connect to a plumbing system to perform a specific function

3A.40**apparatus**

technical equipment used to perform a particular activity or installed for a purpose

3A.41**aqueduct**

water supply channel

Note 1 to entry: The aqueduct will be vested in, belong to, or be under the control of the responsible authority.

3A.42**arrestor**

apparatus designed to intercept and retain silt, sand, oil, grease, sludge or other substances that are a prohibited discharge to the sewerage or drainage system

3A.43**atmospheric vacuum breaker**

See *backflow prevention device* ([3B.6.1](#))

3A.44**autoclave**

See *sterilizer* ([3S.143](#))

3A.45**autogenous welded joint**

See *joint* ([3J.3.1](#))

3A.46**automatic cistern**

See *flushing cistern* ([3C.25.1](#))

3A.47**automatic flush tank**

See *tank* ([3T.2.1](#))

3A.48**automatic hand washing station**

unit which automatically mixes water, soap and air for hygienic hand washing

3A.49**autopsy table**

fixture upon which post-mortem examinations are performed and which has provision for drainage to the sanitary plumbing system

3A.50**auxiliary pressure-relief device**

pressure-operated device forming part of an expansion control valve, temperature-relief valve, or temperature and pressure relief valve

Note 1 to entry: In the event of blockage of the drain outlet, the device should provide —

- (a) expansion relief (expansion-control valves);
- (b) safety relief (temperature-relief valves); or
- (c) both expansion and safety relief (temperature/pressure-relief valves).

3A.51**auxiliary water heater**

See *water heater* ([3W.24.1](#))

3A.52**average flush volume**

one full-flush discharge volume and four reduced-flush discharge volumes

3A.53**average recurrence interval****ARI**

mean or expected value of the periods between exceedances of a given rainfall total accumulated over a given duration

Note 1 to entry: ARI is an average value based on statistical analysis. The periods between exceedances are generally random.

3B.1**back fall**

See *fall* ([3F.4.1](#))

3B.2**back-siphonage**

reversal of flow of water caused by negative pressure in the distributing pipes of a water service or supply

3B.3**backfill**

See *fill* ([3F.10.1](#))

3B.4**backflow**

<1> flow in a direction contrary to the normal or intended direction of flow

<2> unintended flow of water from a potentially polluted source into a drinking water supply

3B.5**backflow condition**

situation whereby backflow may occur

3B.6**backflow prevention device**

device to prevent the reverse flow of water from a potentially polluted source into the drinking water supply

3B.6.1**atmospheric vacuum breaker**

device to prevent backflow caused by back siphonage, incorporating a ventilation valve

Note 1 to entry: The device operates automatically to admit air into the downstream chamber of the valve whenever the pressure in the chamber reduces to or falls below atmospheric pressure.

3B.6.2**double check valve**

device to prevent backflow caused by back-siphonage or backpressure with two independently operating force loaded non-return valves

Note 1 to entry: The device incorporates specific test points for in-service testing.

3B.6.3**dual check valve**

device to prevent backflow caused by back-siphonage or backpressure with two independently operating force-loaded non-return valves

3B.6.4**dual check valve with atmospheric port**

device to prevent backflow caused by back-siphonage or backpressure with a ventilation port and two independently operating force-loaded non-return valves

Note 1 to entry: The non-return valves prevent backpressure when operative and the ventilation port automatically admits air to the chamber between the non-return valves under back-siphonage conditions.

3B.6.5**hose connection vacuum breaker**

device fitted to a hose-tap to prevent backflow in a water reticulation system caused by back-siphonage

Note 1 to entry: The device operates automatically to admit air into the system under back-siphonage conditions thus breaking the siphon.

3B.6.6**pipe interrupter device**

backflow prevention device with a permanent unrestricted air inlet, installed so that the flow of water is in a vertical downward direction to protect against back siphonage only

3B.6.7**pressure type vacuum breaker**

device to prevent backflow caused by back-siphonage with a force-loaded ventilation valve, operating automatically to admit air into the downstream chamber of the valve whenever the pressure in the chamber reduces to 7 kPa

Note 1 to entry: The device incorporates specific test points for in-service testing.

3B.6.8**reduced-pressure zone device**

device to prevent backflow caused by either back-siphonage or backpressure in a water reticulation system with two independently operating force-loaded non-return valves

Note 1 to entry: The device automatically drains via a discharge port whenever the pressure in the system between the upstream and downstream non-return valves reduces to a pressure not less than 14 kPa below the pressure at the inlet to the upstream non-return valve.

Note 2 to entry: The device incorporates specific test points for in-service testing.

3B.6.9**registered air gap**

device or system installed for backflow prevention that has been registered with a regulatory authority for the purposes of inspection and maintenance to ensure its continued functionality

3B.6.10**registered break tank**

tank system designed specifically for backflow prevention that has been registered with a regulatory authority for the purposes of inspection and maintenance to ensure its continued functionality

3B.6.11**testable backflow prevention device**

<1> backflow prevention device that is provided with test taps for the purpose of testing its operation

<2> registered break tank or a registered air gap

3B.7**backnut**

nut that retains surface-mounted tapware

3B.8**backpressure**

difference between the pressure within any water service and a higher pressure within any vessel or pipework to which it is connected

3B.9**bain-marie**

device designed to keep food warm for serving by placing the food in a container that sits on a specially designed tray for heating water

3B.10**ball joint**

See *joint* ([3J.3.2](#))

3B.11**ball valve**

See *valve* ([3V.5.3](#))

3B.12**band clamped sleeve joint**

See *joint* ([3B.12](#))

3B.13**bar sink**

See *sink* ([3S.76.1](#))

3B.14**barrel**

longitudinal section of pipe that does not include the jointing portion

3B.15**barrel nipple**

See *nipple* ([3N.3.1](#))

3B.16**barrel union**

fitting for connecting together and disconnecting two pipes

3B.17**basement**

floor space of a building that is substantially or wholly below the level of the adjoining ground surface

3B.18**basin**

fixture for holding water for ablutionary purposes, which may be designed for mounting in a corner, mounted on a floor supported pedestal, attached to a wall by means of brackets and screws, or set in a vanity top

3B.19**bath**

fixture for containing water in which the human body may be immersed for ablutionary or treatment purposes

3B.19.1**eye wash**

open receptacle consisting of a small bowl with jets of water controlled by a hand or foot operated valve

3B.19.2**foot bath**

bath fixed at a low level for washing or soaking feet

3B.19.3**shower bath**

bath combined with a shower outlet

3B.19.4**spa bath**

bath with the facility for injecting air and jets of turbulent water into water contained in the bath

3B.19.5**therapeutic bath**

appliance in which the human body may be immersed in water for ablutionary or treatment purposes

Note 1 to entry: The appliance may include but is not limited to, integral components that control the inflow and outflow of water, and water temperature.

3B.20**bathroom appliance**

product that integrates dedicated fixtures appliances and fittings into a functional unit for easy connection to the plumbing infrastructure

3B.21**bath and shower connector**

fitting that is interposed between a fixture outlet and a waste trap to facilitate installation or attenuate the effects of thermally induced movement, or both

3B.22**batter**

<urinals> permanent outward fall in the walls of a urinal slab or stall to ensure adequate cleansing of walls

<excavation> slope of the sides of an excavation

3B.23**bearing capacity**

<soil> safe load, per unit area, that the soil can carry

3B.24**bedding**

material placed beneath and around a pipe to provide support for the pipeline

3B.25**bedpan macerator**

fixture to macerate papier-mâché single-use receptacles and their contents in a sanitary manner

Note 1 to entry: It incorporates an internal flushing and sanitizing cycle after every usage.

3B.26**bedpan washer
sterilizer**

sanitary fixture in which bedpans and urine bottles may be emptied or cleansed

Note 1 to entry: It incorporates a flushing apparatus and may also be a sterilizer.

3B.27**belled end joint**

See *joint* ([3J.3.4](#))

3B.28**bench**

<1> floor area of a chamber graded to the channel

<2> steps cut into the side of an open pit or trench

<3> countertop or sink bench

3B.29**bend**

short length of pipe or a manufactured fitting used to make a change in direction in pipework

3B.29.1**inspection opening bend**

sanitary drainage bend that incorporates an inspection opening

3B.29.2**long bend**

pipe bend having a centre-line radius of curvature equal to or greater than 3 times its internal diameter

3B.29.3**pan bend**

soil pipe bend terminating in a socket to receive the spigot of a sanitary fixture

EXAMPLE WC pan.

3B.29.4**reducing bend**

fitting in the form of a bend in which the internal diameter is reduced

3B.29.5**return bend**

pipe used to change direction by 180°

3B.29.6**short bend**

pipe bend having a radius at the centre-line equal to or less than its internal diameter

3B.29.7**spring bend**

pipe or fitting used to change direction by less than 90°

3B.30**bib tap**

See *tap* ([3T.3.1](#))

3B.31**bidet**

sanitary fixture equipped with a douche device for producing a jet of water, from a point below the rim of the pan, which can be applied to the body

3B.32**bidette**

sanitary fixture equipped with a douche but with over rim type water outlets, providing an airgap

3B.33**blank flange**

See *flange* ([3F.30.1](#))

3B.34**blue metal**

crushed graded quarry stone, which does not disintegrate over time

3B.35**boiler**

See *water heater* ([3W.24.2](#))

3B.36**boiling water unit**

apparatus for providing a supply of boiling water

3B.37**bolted gland joint**

See *joint* ([3J.3.5](#))

3B.38**bonded**

glued or adhered

3B.39**boss**

connection on a vessel, pipe or fitting, provided to facilitate the connection of a pipe or fitting

3B.39.1**pipe boss**

short length of pipe with one or more bosses

3B.39.2**screwed boss**

fitting for attachment to the plate of a vessel, having an external or internal thread for the connection of a pipe, pipe fitting, valve, tap, immersion heater or other accessory

3B.40**bottle trap**

See *trap* ([3T.36.1](#))

3B.41**boundary trap**

See *trap* ([3T.36.2](#))

3B.42**boundary trap riser**

vertical shaft that extends the inlet leg of a boundary trap to ground surface level to provide access to the drain for inspection, cleaning and maintenance purposes

3B.43**bracket**

projecting support for a shelf, pipe or other part

3B.44**branch drain**

See *drain* ([3D.37.1](#))

3B.45**branch pipe**

See *pipe* ([3P.17.2](#))

3B.46**branch vent**

See *vent* ([3V.12.1](#))

3B.47**brazed joint**

See *joint* ([3J.3.6](#))

3B.48**brazing**

process of joining metals in which a molten non-ferrous filler metal is drawn by capillary action into the space between closely adjacent surfaces of the parts to be joined

Note 1 to entry: The melting point of the filler metal is normally above 500 °C but always below the melting temperature of the metals being joined.

3B.48.1**brazing alloy**

non-ferrous alloy, applied in the molten state, for joining together metal components by brazing

3B.49**break pressure tank**

See *tank* ([3T.2.2](#))

3B.50**break tank**

See *tank* ([3T.2.3](#))

3B.51**brittle failure**

failure of the material in pipe form during pressure testing where the pipe exhibits no plastic deformation visible to the naked eye (normal or corrected vision)

3B.52**bronze welded joint**

See *joint* ([3J.3.7](#))

3B.53**bucket pump**

See *pump* ([3P.67.2](#))

3B.54**built-in sink**

See *sink* ([3S.76.2](#))

3B.55**butterfly valve**

See *valve* ([3V.5.4](#))

3B.56**bypass**

alternative path for diverting the flow of liquid around instead of through a fitting or apparatus

3C.1**calorifier**

apparatus for indirect heating of water in a vessel, the source of heat being a separate coil of heated pipes immersed in the water

3C.2**cap and lining**

fitting being a sleeve, one end of which is suitable for connection to another fitting or component and the other end having a shouldered end and loose coupling nut to connect to a threaded fitting

3C.3**capacity****3C.3.1****cistern capacity**

volume calculated by measuring up to the marked water level

3C.3.2**pump capacity**

flow rate through a pump at its designed conditions

3C.3.3**storage tank capacity**

volume of water above the invert of the outlet pipe when the water surface in the tank is 20 mm below the overflow level

Note 1 to entry: This refers to the working capacity of a tank, not the total capacity of the tank.

3C.3.4**storage water heater capacity**

nominal storage capacity in litres

3C.3.5**vessel capacity**

maximum volume capable of being contained in a vessel

3C.4**capillary fitting**

See *fitting* ([3F.22.6](#))

3C.5**capillary joint**

See *joint* ([3J.3.8](#))

3C.6**cast**

general term for products at or near finished shape formed by solidification of a molten metal or alloy in a mould

3C.7**cathodic protection**

method of protecting a metal against corrosion by lowering the potential of the metal surface by means of an impressed current or by connection to a sacrificial anode

3C.8**caulked joint**

See *joint* ([3J.3.9](#))

3C.9**cavitation**

formation, growth and collapse of vapour cavities in a liquid following a drop in pressure

Note 1 to entry: The drop in pressure is usually associated with a large local increase in velocity, as in a pump.

3C.10**cement mortar joint**

See *joint* ([3J.3.10](#))

3C.11**central heating water heater**

See *water heater* ([3W.24.3](#))

3C.12**centre-line radius**

radius (of a bend) measured to the centre line of the pipe

3C.13**centrifugal pump**

See *pump* ([3P.67.3](#))

3C.14**chamber**

compartment or enclosed space for air or water usage

3C.14.1**access chamber**

below-ground structure with a sealed cover constructed in the line of a sanitary drain to facilitate maintenance of the drain

3C.14.2**air chamber**

vessel that utilizes the compressibility of contained air to minimize shock due to water hammer when connected to a pressurized water system

3C.14.3**flushing chamber**

chamber in which water for flushing is introduced into a drainage or sewerage system

3C.14.4**inspection chamber**

chamber constructed in a drainage system to facilitate inspecting, testing or clearance of obstructions

3C.14.5**precast chamber**

pre-constructed facility in a drain or sewer to provide access for inspecting or testing purposes or for the clearance of obstructions

Note 1 to entry: It consists of a chamber that is accessible through a removable cover.

3C.14.6**pressurized chamber**

enclosed space where the pressure is above atmospheric pressure

3C.14.7**side entrance chamber**

chamber constructed so 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

3C.15**chamber base**

floor section, commonly cast in situ, that provides a base for the wall sections of the chamber and contains the flow channels

3C.16**chamber cover slab**

precast unit for installation on top of the wall sections to act as the top of the chamber and upon which the height-adjustment rings and cover are located

3C.17**chamber height adjustment ring**

unit acting as a spacer between the cover slab and cover to enable the level of the cover to be adjusted to match the surrounding finished ground level

3C.18**channel**

open graded passage for the conveyance of liquids

3C.19**charge pipe**

See *pipe* ([3P.17.3](#))

3C.20**chase**

narrow channel formed in a wall or floor for recessing a pipeline below the surface

3C.21**check valve**

See *non-return valve* ([3N.12](#))

3C.22**chemical water closet pan**

See *water closet pan* ([3W.16.1](#))

3C.23**chlorination**

addition of chlorine for disinfection

3C.24**circulation pipe**

See *pipe* ([3P.17.4](#))

3C.25**cistern**

tank in which water is stored at atmospheric pressure

Note 1 to entry: Water is normally received through a float control valve set at a predetermined level and incorporating an air gap.

3C.25.1**flushing cistern**

cistern that is capable of discharging a measured quantity of water, either automatically at intervals regulated by the rate at which water is fed to the cistern or by manual operation of the flushing mechanism

3C.25.2**water closet cistern**

flushing cistern designed to be installed in conjunction with a WC pan, which incorporates a mechanism (normally a float control valve) to control the water level

3C.25.2.1**close-coupled water closet cistern**

cistern intended to operate directly coupled to the water closet pan or other soil waste fixture

3C.25.2.2**concealed or in-wall water closet cistern**

designed for concealed installation in a wall, duct or cavity

3C.25.2.3**high-level water closet cistern**

cistern designed to operate when the dimension from the base of the cistern to the top of the pan is not less than 550 mm

3C.25.2.4**low-level water closet cistern**

cistern designed to operate when the dimension from the base of the cistern to the top of the pan is less than 350 mm

3C.25.2.5**manual dual flush water closet cistern**

cistern in which the flush is activated by a manual operation, and capable of giving flushes of two different volumes, either of which can be selected by the user

3C.25.2.6**manual single flush water closet cistern**

cistern in which the flush is activated by a manual operation, and which is capable of giving only one flush volume

3C.25.2.7**mid-level water closet cistern**

designed to operate when the dimension from the base of the cistern to the top of the pan is between 550 mm and 350 mm

3C.26**cistern-fed water heater**

See *water heater* ([3W.24.4](#))

3C.27**class**

<valves> allowable operating pressure expressed in hundreds of kilopascals

3C.28**cleaners' sink**

See *sink* ([3S.76.3](#))

3C.29**cleaning eye**

small access opening in a pipe or pipe fitting positioned to facilitate the clearing of obstructions and fitted with a removable and resealing cap or plug

3C.30**clip fastener**

fixing arrangement designed to bolt, screw, fasten or otherwise fix or mount plumbing products or related items

3C.31**close-coupled solar water heater system**

See *solar water heater* ([3S.108.1](#))

3C.32**close-coupled water closet pan**

See *water closet pan* ([3W.16.2](#))

3C.33**close taper nipple**

See *nipple* ([3N.3.2](#))

3C.34**closet**

See *water closet* ([3W.15](#))

3C.35**closing temperature**

temperature at the inlet of the valve that first allows it to close

3C.36**clothes washing machine**

appliance for washing laundry which uses water

3C.37**coating**

protective material applied to the surface of a pipe, fitting or valve

3C.38**coating defect**

detectable weakness or discontinuity in a coating, which is deemed to be suspect in its ability to protect the substrate from corrosion during its normal service life

3C.39**cold water**

water that has not been intentionally heated

3C.40**collar**

pipe fitting in the form of a sleeve, for jointing the spigot ends of two pipes in the same alignment

3C.40.1**double collar**

arrangement for joining two spigot ends of pipe

3C.40.2**finishing collar**

fitting for attachment to the riser of an external disconnector gully into which a grating can be seated

3C.40.3**split collar**

repair collar manufactured in two pieces and fixed together along the longitudinal axis of the fitting

3C.41**collector**

See *solar water heater — terms* ([3S.105.5](#))

3C.42**collector aperture**

See *solar water heater — terms* ([3S.105.6](#))

3C.43**combination relief valve**

See *valve* ([3V.5.6](#))

3C.44**combined pipe**

See *pipe* ([3P.17.6](#))

3C.45**combined stack**

See *stack* ([3S.132.1](#))

3C.46**combined tap**

See *tap* ([3T.3.3](#))

3C.47**commercial fixture or appliance**

fixture or appliance designed for use in commercial situations

3C.48**common discharge pipe**

See *pipe* ([3P.17.7](#))

3C.49**common effluent drainage system**

system for collecting and removing effluent from a group of properties

3C.50**common vent**

See *vent* ([3V.12.3](#))

3C.51**compaction**

process of consolidating soil or other materials by mechanical or other means

3C.52**compatible material**

material that does not adversely interact with other materials with which they are in contact

3C.53**component**

part or sub-assembly of parts that contributes to the construction of a larger assembly or system

3C.54**compression fitting**

See *fitting* ([3F.22.7](#))

3C.55**compression joint**

See *joint* ([3J.3.11](#))

3C.56**compressive strength**

bearing strength of concrete

3C.57**concrete surround**

<general> concrete margin around a valve box cover, hydrant cover or similar device

<pipe or fitting> concrete encasing of a pipe or fitting

3C.58**condensate**

liquid condensed from a vapour

3C.59**conductivity**

<water> measure of the concentration of dissolved solids

Note 1 to entry: It is usually expressed in microsiemens/cm.

3C.60**conduit**

pipe or other closed passage, for the conveyance of liquids

3C.61**connection**

<1> short section of pipe connector which joins the supply pipe to a fixture

<2> servicing of a property with water supply or sanitary drainage or effluent disposal

3C.62**contaminant**

solids, organisms, liquids or gases entering, or with the potential to enter and pollute, the drinking water supply

3C.63**contaminated area**

site or region that is damaged, harmed or made unfit for use by the introduction of unwanted substances

EXAMPLE Ash pits, tanks, ponds, manure bins, waste disposal depots and wastewater treatment works.

Note 1 to entry: Unwanted substances could include microorganisms, chemicals, toxic and radioactive materials and wastes.

3C.64**contamination of water test**

See *test* ([3T.14.4](#))

3C.65**contingency reserve**

water held in storage for use in the event of an interruption to the normal supply

3C.66**continuously supported pipe**

<above ground> pipe placed on a cradle extending the length of the barrel with the cradle following the contour of the pipe

<below ground> pipe laid with socket holes dug into the bedding material providing support to the pipe between sockets

3C.67**controlled-pressure water heater**

See *water heater* ([3W.24.5](#))

3C.68**cooling equipment**

facility designed to cool a medium, but not including air-conditioners

3C.68.1**air cooling equipment**

equipment that is intended to lower the temperature of air

3C.68.2**water-cooling equipment**

equipment that is intended to lower the temperature of water but not water-cooled drink dispensers

3C.69**cooling facility**

facility designed to lower the temperature of trade waste or water sufficiently before being discharged

3C.70**corbel water closet pan**

See *water closet pan* ([3W.16.3](#))

3C.71**corrosive area**

environment, usually below ground, where substances are present which are corrosive to metallic components

3C.72**coupling**

fitting used to connect pipes, fittings or fixtures

3C.72.1**bayonet coupling**

coupling in which two or more pins extend out from a plug and engage in grooves in the side of a socket

Note 1 to entry: This is used as a quick coupling mechanism for mating a plug onto a receptacle.

3C.72.2**bayonet expansion coupling**

coupling that permits longitudinal movement of the joined parts (relative to each other)

Note 1 to entry: Longitudinal movement is caused by expansion and contraction due to temperature change.

3C.72.3**bayonet flexible coupling**

coupling that permits movement of the connected pipework out of its original alignment or permits the jointing of components that are not aligned

3C.72.4**gibault coupling**

coupling that uses mechanical means and rubber seals to affect a joint between two pipes in the same alignment

3C.72.5**hose tap coupling**

coupling that is attached to the inlet end of a hose and has a loose threaded nut for attachment to a hose tap

3C.72.6**insulating coupling**

pipe fitting that breaks the electrical continuity between adjacent pipes, fittings or fixtures

3C.73**cover**

<1> apparatus consisting of a removable lid and a lid support usually installed at ground level

<2> vertical distance between the top of the pipe and the finished surface

3C.73.1**access cover**

removable cover to provide access for cleaning or inspection

3C.73.2**fire hydrant cover**

box fitted for ready access to a fire hydrant

3C.73.3**inspection opening cover**

cover for protecting and providing access to a below-ground inspection opening

3C.73.4**valve cover**

cover for locating, protecting and providing access to a valve arrangement

3C.74**cover chamber**

space above the operating mechanism in which the water pressure is applied to close the valve or relieved to open the valve

3C.75**cradle**

structure for supporting a pipe or apparatus from beneath and from the sides

3C.76**cross-connection**

actual or potential connection between a water supply and any contaminant

3C.77**cross fitting**

See *fitting* ([3F.22.9](#))

3C.78**cross-linked polyethylene****PE-X**

structures within the polyethylene polymer chains that are interconnected by chemical bonds to create a three-dimensional polymer network

Note 1 to entry: The properties of the three-dimensional structure ensure that it is not possible to melt or dissolve the polymer. The extent of cross-linking is related to the mass of insoluble material remaining following solvent extraction and can be determined by measurement of the gel content.

3C.79**cross-pitch installation**

See *solar water heater — terms* ([3S.105.3](#))

3C.80**cross vent**

See *vent* ([3V.12.4](#))

3C.81**crown**

highest point on the external surface of a pipe or culvert at any cross-section

3C.82**crown of trap**

topmost point of the outlet leg of a trap

3C.83**croxed fitting**

See *fitting* ([3F.22.10](#))

3C.84**croxed joint**

See *joint* ([3J.3.13](#))

3C.85**cyclic actuator**

device capable of activating the product under test through the cycles of movements, to simulate normal usage over a relatively short period of time

3D.1**dashpot**

device, usually an integral component of a valve, designed for the purpose of reducing the fluid velocity or damping vibration in the valve and the associated connected pipework system

3D.2**dead leg**

<cold water> sections of pipe that do not allow the water in the pipe to circulate and/or flow

EXAMPLE Where fixtures have been deleted and pipes capped at the point of use.

<general> branch pipe in a water service containing dead water

<heated water> any branch off a heated water circulatory system

3D.3**dead water**

<cold water> water that is incapable of being flushed from cold water services

<heated water> cold water drawn off before heated water commences to discharge from a heated water outlet

3D.4**delayed action float valve**

See *valve* ([3V.5.7](#))

3D.5**dental console**

chair and associated equipment required to perform dental work on a patient

3D.6**dental cuspidor**

fixture for use in a dental surgery for the reception of mouth washings

3D.7**dental equipment**

fixture or apparatus for use in a dental surgery

3D.8**dental evacuation equipment**

fixture designed to operate below atmospheric pressure and remove saliva and dental waste material from the mouth of a patient into a catchment receptacle that permits liquid waste to gravitate from, or be forced to, a drainage point with or without the assistance of water

3D.9**dental unit**

mobile or fixed piece of equipment usually with a chair or other accessories or utilities necessary for dental examinations

3D.10**depth of water seal**

vertical distance measured between the dip and the crown weir of a trap

3D.11**design life**

period of time, stated by the manufacturer, that a device or system is expected to perform without requiring major maintenance or replacement

3D.12**determined airflow capacity**

airflow, in litres per second, while producing a pressure of $-250 \text{ Pa} \pm 10 \text{ Pa}$ at the manometer tapping

3D.13**developed length**

total length along the centre-line of a pipe and fittings including all bends

3D.14**dezincification**

corrosion of copper or zinc alloys involving loss of zinc and leaving a residue of spongy or porous copper

3D.15**dezincification resistant****DR**

material that is not susceptible to corrosion of copper/zinc alloys involving loss of zinc leaving a residue of spongy or porous copper

3D.16**diametral clearance**

annular clearance between the spigot and socket in a spigot and socket joint

3D.17**diameter nominal****DN**

numerical designation of size, common to all components in a piping system other than components designated by outside diameters or by thread size

Note 1 to entry: Nominal size is designated by DN followed by a number.

Note 2 to entry: It is a convenient round number for reference purposes and is only loosely related to manufacturing dimensions.

Note 3 to entry: Not all piping components are designated by nominal size. For example, steel tubes are designated and ordered by outside diameter and thickness.

Note 4 to entry: Nominal size cannot be subject to measurement and is not to be used for purposes of calculation.

3D.18**diaphragm pump**

See *pump* ([3P.67.5](#))

3D.19**diaphragm valve**

See *valve* ([3V.5.8](#))

3D.20**dip**

<trap> lowest position of the barrier within any trap that enables a water seal to be formed

3D.21**disc clearance dimension**

dimension equivalent to the minimum internal diameter of the adjacent pipe or flange which will allow the disc to fully open without interference or damage to the disc sealing edge

3D.22**discharge capacity**

quantity of water discharged from a flushing cistern

3D.23**discharge pipe**

See *pipe* ([3P.17.8](#))

3D.24**disconnecter gully**

See *gully* ([3G.28.1](#))

3D.25**displacement water heater**

See *water heater* ([3W.24.6](#))

3D.26**domed grating**

See *grating* ([3G.20.1](#))

3D.27**domestic fixture or appliance**

fixture or appliance that is designed for use in residential situations

3D.28**double air valve**

See *valve* ([3V.5.9](#))

3D.29**double bowl sink**

See *sink* ([3S.76.4](#))

3D.30**double check valve**

See *backflow prevention device* ([3B.6.2](#))

3D.31**double collar**

See *collar* ([3C.40.1](#))

3D.32**double socket**

See *socket* ([3S.93.1](#))

3D.33**double wall heat exchanger**

See *heat exchanger* ([3H.6.1](#))

3D.34**double Y junction**

See *junction* ([3J.17.2](#))

3D.35**downpipe**

pipe to carry roof water from gutters and roof catchments to drains or storage tanks

3D.36**downstream vent**

See *vent* ([3V.12.5](#))

3D.37**drain**

<sanitary> line of pipes above- or below-ground level within the property boundary, including all fittings and equipment generally external to a building, intended to convey under gravity, sewage or trade waste

3D.37.1**branch drain**

section of a drain that is intended to receive the discharge of fixture discharge pipes but which has a lower fixture unit loading and which may be of smaller nominal size than the main drain at its point of connection

3D.37.2**main drain**

main conduit of a drainage system to which branches are connected

Note 1 to entry: It is that portion of a sewerage service on private property that is normally located in the ground and that conveys or is intended to convey the discharge from branch drains and fixture discharge pipes (connected along its length) to the sewer.

3D.37.3**untrapped floor drain**

grated outlet to a pipe discharging to an outside location where it will not cause damage

3D.38**drain tap**

See *tap* ([3T.3.4](#))

3D.39**drainlayer**

person registered or licensed in the construction of drains

3D.40**draw-off tap**

See *tap* ([3T.3.5](#))

3D.41**drench shower**

See *shower* ([3S.58.1](#))

3D.42**drink dispenser**

appliance which has a water supply or a waste connection, or both that makes or dispenses drinks

EXAMPLE

Water coolers, coffee making machines, cappuccino machines and other beverage dispensers.

3D.43**drinking fountain**

fixture that provides a low flow jet of water from which the user may drink directly

Note 1 to entry: The supply of water is controlled by a hand-operated or foot-operated tap.

3D.44**drinking water****OBSOLETE: potable water**

water intended primarily for human consumption but with other domestic uses

3D.45**drop junction**

See *jump-up* ([3J.15.2](#))

3D.46**dropper**

vertical or near vertical water supply or sanitary plumbing pipework

3D.47**dry (road) service**

property service installed beneath a roadway prior to the connection of the property to the water main

3D.48**dry wall construction**

wall built without mortar

3D.49**dry weather flow**

flow in a sewer or drain under normal operating conditions when infiltration is at a minimum

3D.50**dry well pump**

See *pump* ([3P.67.8](#))

3D.51**dual check valve**

See *backflow prevention device* ([3B.6.3](#))

3D.52**duct**

enclosed area to accommodate pipework

3D.53**ductile mode**

failure of material where macroscopic plastic deformation occurs

3D.54**dye test**

See *test* ([3T.14.5](#))

3D.55**dynamic pressure**

See *pressure* ([3P.45.5](#))

3E.1**eccentric taper fitting**

See *fitting* ([3E.22.11](#))

3E.2**effective length**

overall length of a pipe or fitting measured along its centre line, excluding the insertion depth of the spigot in any sockets

3E.3**effective opening**

cross-sectional area of the water passage, either through the control valve nearest to the point of discharge or of the pipe or fitting, whichever is the lesser

Note 1 to entry: The effective opening is expressed as —

- (a) the diameter of a circle; or
- (b) the diameter of a circle of equivalent cross-sectional area where the opening is not circular.

3E.4**effluent**

liquid discharged from a wastewater treatment process

3E.5**egg-shelling**

polygonal surface pattern on cement mortar lining resembling the crazing effect exhibited by eggshells with multiple fractures

3E.6**ejector pot**

chamber of a compressed air sewage ejector into which sewage drains prior to being ejected by compressed air

3E.7**elbow**

pipe fitting for providing a sharp change of direction in a pipeline

3E.8**elbow action tap**

See *tap* ([3T.3.6](#))

3E.9**electronic tap**

See *sensor tap* ([3T.3.24](#))

3E.10**elevation head**

See *head* ([3H.2.1](#))

3E.11**end plug**

See *plug* ([3P.30.1](#))

3E.12**end stop**

mechanical device, integral to the gearbox, that is designed to prevent the valve disc travelling past the fully open or closed position

3E.13**entry at grade junction**

See *junction* ([3J.17.4](#))

3E.14**epoxy barrier coating system**

two-part epoxy resin that is applied to a metallic substrate in order to form a protective barrier for limiting corrosion

Note 1 to entry: Epoxy barrier coatings are prepared for application using mechanically engineered metering and mixing methods to ensure mixing and dispensing controls to manufacturers' specifications.

3E.15**epoxy resin**

adhesive comprising two components which, when mixed in the correct proportions, react to harden the mixture and form a strong joint

3E.16**epoxy resin joint**

See *joint* ([3J.3.14](#))

3E.17**equilibrium float valve**

See *valve* ([3V.5.12](#))

3E.18**evaporative air-conditioner**

appliance intended to provide a flow of air that has been cooled by the evaporation of water

3E.19**expansion control valve**

See *valve* ([3V.5.13](#))

3E.20**expansion coupling**

See *coupling* ([3C.72.2](#))

3E.21**expansion fitting**

See *fitting* ([3F.22.13](#))

3E.22**expansion joint**

See *joint* ([3J.3.15](#))

3E.23**expansion loop**

loop in a pipeline which by flexing can accommodate expansion and contraction movements due to temperature change

3E.24**expansion vessel**

vessel designed to limit the pressure due to the expansion of heated water in an unvented heated water system without discharging the water to the atmosphere

3E.25**expansive soil**

soil that undergoes volumetric changes due to variations in moisture content

3E.26**external stormwater drainage network**

drainage network that collects and conveys stormwater from individual properties

EXAMPLE

Easement or inter-allotment drains, and street and trunk drainage systems.

3E.27**extruded component**

<moulding> component (at or near finished shape) produced by being forced from a closed container through a die of an appropriate contour

3E.28**eye bath**

See *eye wash* ([3B.19.1](#))

3F.1**fabricated fitting**

See *fitting* ([3F.22.14](#))

3F.2**fabricated assembly**

assembly where two or more components are joined during the manufacturing process and intended as a permanent joint

3F.3**face-to-face dimension**

distance between the valve mating faces, measured along the valve axis

3F.4**fall**

difference in level between two points in the direction of flow

3F.4.1**back fall**

difference in level between two points in the opposite direction to the designed flow

3F.5**falling level water heater**

See *water heater* ([3W.24.7](#))

3F.6**feed pipe**

See *pipe* ([3P.17.9](#))

3F.7**ferrule**

rigid metal sleeve, one end of which is for jointing to the end of a soft metal pipe and the other end for insertion into a socket to enable a caulked joint to be made

3F.8**ferrule key**

See *key* ([3K.1.1](#))

3F.9**ferrule tap**

See *tap* ([3T.3.8](#))

3F.10**fill****3F.10.1****backfill**

process of replacing soil in a trench after completion of the related plumbing or drainage work

3F.10.2**ordinary fill**

earth removed from the excavation or imported

3F.10.3**selected fill**

specified material chosen for a particular application used to refill a trench or form an embankment

3F.11**filter**

apparatus used to separate solids from liquids

3F.12**finishing collar**

See *collar* ([3C.40.2](#))

3F.13**fire drencher sprinkler system**

heat-activated fire suppression system that sprays water on the outside surface of a building or structure to prevent the spread of fire from an adjacent burning building or structure

3F.14**fire hose reel**

firefighting hose that is connected to a valved water supply and is wound on a reel

3F.15**fire hydrant**

fitting installed in a water pipeline with a valved outlet (above or below ground) to enable a controlled supply of water to be drawn from the pipeline for firefighting or street flushing

3F.15.1**fire plug**

fire hydrant (generally below ground) with identifying cover and marker, having provision for connection of a fire hydrant standpipe to permit operation of the outlet valve and connection of hoses

3F.15.2**pillar hydrant**

fully exposed (above-ground) cast iron fire hydrant with a control for operating the outlet valve and providing an outlet for connection of hoses

3F.15.3**screwdown hydrant**

fire hydrant (below-ground) with identifying cover and marker with a control for operating the valved outlet and to which hoses may be connected by using an extension piece so that the hose connection is above ground

3F.15.4**spring hydrant**

valve in which a seal is achieved under normal operating conditions by a spring-loaded dome, operated in conjunction with a resilient seat

Note 1 to entry: The valve is generally operated by means of the attachment of a standpipe.

3F.16**fire hydrant cover**

See *cover* ([3C.73.2](#))

3F.17**fire hydrant riser**

short pipe with flanged ends supplied in varied lengths so that a fire hydrant outlet can be located at a standard depth, irrespective of the depth of the water pipeline

3F.18**fire hydrant standpipe**

portable pipe fitting for connection to a fire hydrant to operate the hydrant outlet valve and to provide a connection for hoses

Note 1 to entry: It may incorporate a booster valve assembly.

3F.19**fire plug**

See *fire hydrant* ([3F.15.1](#))

3F.20**fire service**

service comprising water pipes, fire hydrants, fire hose reels, fittings, and water storage or pumping facilities that is solely for firefighting and extinguishing purposes in and around a building or property

Note 1 to entry: Under certain conditions, part of a fire sprinkler system may be included.

Note 2 to entry: Services used for other purposes are deemed to be water services.

3F.21**fire sprinkler service**

pipework service designed to be kept charged with water under pressure and fitted with sprinklers that are automatically activated

3F.21.1**armpiece**

horizontal range or distribution pipe to which a maximum of two sprinklers are connected directly by a dropper, a candlestick, or a flexible tube assembly

3F.21.2**candlestick**

vertical range pipe to which upright sprinklers are directly fitted

3F.21.3**control assembly****distribution main**

pipe between the control assembly and the first distribution pipe nearest the water supply

3F.21.4**distribution pipe**

pipe between a range pipe and a distribution main

3F.21.5**dropper**

vertical range pipe to which pendent sprinklers are directly fitted or connected by flexible tube assembly

3F.21.6**manifold**

pipe that connects control assemblies or pumps in close proximity

3F.21.7**range pipe**

pipe to which sprinklers or flexible tube assemblies are fitted that does not supply any other pipes except range pipes not longer than 500 mm

3F.21.8**trunk main**

pipe between the water supply (i.e. backflow prevention device) and each sprinkler control assembly

Note 1 to entry: In relation to fire services, see also *trunk water main* ([3M.2.5](#)).

3F.22**fitting**

item placed in a pipeline for jointing, connecting or changing the direction or internal diameter of the pipeline

3F.22.1**access fitting**

straight extension that incorporates a test or access opening end

3F.22.2**adaptor fitting**

<1> fitting that enables the connection of other fittings or components whose normal jointing methods do not allow interconnection

<2> fitting that incorporates connection ends with different methods of jointing

3F.22.3**aerator junction fitting**

proprietary fitting connected to a reduced-velocity aerated stack (RVAS) system to connect graded discharge pipes, common discharge pipes, or stacks

3F.22.4**angle of fitting**

<drainage work> angle formed by the longitudinal axis of the fitting and the axis of the branch or a change in direction when a fitting is viewed with the spigot downstream with the inspection opening toward the observer

Note 1 to entry: The change in direction is read in a clockwise direction for right-hand fittings and an anti-clockwise direction for left-hand fittings.

3F.22.5**blank end fitting**

fitting with a closure to close off a pipeline while allowing for future opening and attachment of additional pipe or fittings by removal of the closure

3F.22.6**capillary fitting**

fitting in which the joint is made by the application of heat to cause the flow of filler metal by capillary action along the annular space between the outside of the tube and the inside of the socket of the fitting

3F.22.7**compression fitting****nut fitting**

fitting used to make a watertight joint in which the end of a pipe is held by compression either on the outside of a pipe or against a manipulated end of a pipe

Note 1 to entry: The compressive effect is achieved by tightening the compression nut.

Note 2 to entry: The joint may be olive, cone, flared or croxed type.

3F.22.7.1**Type 1 non-manipulative fitting**

fitting for a compression joint which does not require any working of the tube other than cutting square

Note 1 to entry: The joint is made tight by means of a loose compression ring which grips the outside wall of the tube when the coupling nut is tightened.

Note 2 to entry: Components of a Type 1 non-manipulative fitting used to grip the outside wall of the pipe include a ring, cone, olive or sleeve.

3F.22.7.2**Type 2 manipulative fitting**

fitting in which the joint is made by flaring, croxing, capping or beading the end of the tube which is then compressed by the coupling nut against the shaped end of the corresponding section in the fitting

3F.22.8**crimped fitting**

fitting in which the joint is made by compression of the fitting and/or a ring on the outside wall of the pipe by means of a special tool

3F.22.9**cross fitting**

fitting having four connection ends all lying in the one plane and separated by 90°

3F.22.10**croxed fitting**

fitting where the joint is made by forming a raised circular section close to the end of the tube then compressed by the coupling nut against the shaped end of the corresponding section in the fitting

3F.22.11**eccentric taper fitting**

reducer that maintains level soffits in the adjoining graded pipes

3F.22.12**electrofusion fitting**

fitting in which the joint with the pipe is made by melting together the outer part of the pipe and the inner part of the fitting

Note 1 to entry: Joint is made by heat that is induced by current flowing in an appropriate resistor in the fitting body.

3F.22.13**expansion fitting**

coupling that permits longitudinal movement due to temperature changes in the connected pipework

3F.22.14**fabricated fitting**

fitting constructed by joining together a number of components

Note 1 to entry: The fitting when assembled is designed to suit a specific purpose.

3F.22.15**fitting with incorporated inserts**

fitting in which the joint is made by connecting threads or other outlets inserted in the plastics body combined with weld ends for socket welding or electrofusion

3F.22.16**flanged fitting**

fitting in which the pipe connection consists of two mating flanges that are mechanically joined together using bolts or studs and nuts

3F.22.17**flat seat union fitting**

fitting in which the pipe connection consists primarily of two components that are mechanically joined by means of a screwed nut or similar and sealed by the compression of an elastomeric sealing element between them

Note 1 to entry: At least one of the two components normally incorporates a flat sealing surface.

3F.22.18**left-hand or right-hand fitting**

bend or junction such that, when the body of the fitting is viewed with the direction of flow downward and with the inspection or testing opening facing the observer, the socket of the bend or the branch of the junction projects to the left or right respectively

3F.22.19**plastic waste fitting**

fitting made from moulded or fabricated plastic material to convey liquid waste

3F.22.20**reducing fitting**

See *reducer* ([3R.11](#))

3F.22.21**slip fitting**

fitting without tube stop shoulders but with a bore that allows easy installation into existing pipework

3F.22.22**socket weld fitting**

fitting in which the joint with the pipe is made by melting together the other part of the pipe with the inner part of the fitting

Note 1 to entry: A heated tool is used to form the weld.

3F.22.23**swivel fitting**

coupling that permits angular movement between two components

3F.22.24**taper fitting**

See *reducer* ([3R.11](#))

3F.22.25**tee fitting**

fitting junction with the branch entering the main pipe at 90°

3F.23**fixed pipe clip**

See *pipe clip* ([3P.19.1](#))

3F.24**fixture**

receptacle with necessary fittings designed for a specific purpose, the use or operation of which results in a discharge into the sanitary plumbing or sanitary drainage installation

3F.24.1**soil fixture**

fixture used to discharge excrement and similar waste

EXAMPLE Water closet pan, urinal, slop hopper, autopsy table, bedpan washer, sanitary napkin disposal unit.

3F.24.2**waste fixture**

fixture other than a soil fixture

3F.25**fixture discharge pipe**

See *pipe* ([3P.17.10](#))

3F.26**fixture outlet**

See *outlet* ([3O.11.1](#))

3F.27**fixture pair**

pair of adjacent waste fixtures of the same type with their outlets connected to the same fixture trap

3F.28**fixture trap**

See *trap* ([3T.36.4](#))

3F.29**fixture unit**

unit of measure, based on the rate of discharge, time of operation and frequency of use of a fixture that expresses the hydraulic load imposed by that fixture on the sanitary plumbing installation

3F.30**flange**

projecting plate or disc, with or without bolt holes, for attaching to or assembling on the end of the pipe, fitting or other component

3F.30.1**blank flange**

solid disc with bolt holes for bolting to a flange to blank off the outlet of a pipe, fitting or vessel

3F.30.2**insulating flange**

pair of mating flanges designed to break the electrical continuity between adjacent pipes, fittings or fixtures

3F.30.3**loose flange**

flange not initially fixed to a pipe or fitting but free to be rotated or moved longitudinally

3F.30.4**puddle flange****weep flange**

flange on a pipe, at the point at which it will pass through a water retaining or watertight structure to increase the resistance to leakage along the exterior of the pipe

3F.31**flange backing ring**

full-face ring used on the back of the flange face to reduce the bolt bearing load on soft flange materials such as aluminium or plastics

3F.32**flange joint**

See *flanged fitting* ([3F.22.16](#))

3F.33**flanged pipe**

pipe having a flange attached to one or both ends by welding, threaded connection or other suitable means

3F.34**flap valve**

See *valve* ([3V.5.37](#))

3F.35**flared joint**

See *joint* ([3J.3.17](#))

3F.36**flat offset**

See *offset* ([3O.3](#))

3F.37**flexible coupling**

See *coupling* ([3C.72](#))

3F.38**flexible hose assembly**

<external> hose intended for use between a pipework system and a fixture, fitting, valve, tap, appliance or similar, that is capable of being adapted or bent in any direction without damage

Note 1 to entry: The flexible hose assembly may consist of an inner liner and an outer reinforcement braid or sleeve with secured end connectors to ensure watertightness.

<internal> hose made from elastomeric or thermoplastic material in contact with a fluid

3F.39**flexible joint**

See *joint* ([3J.3.18](#))

3F.40**flexible mechanical joint**

See *joint* ([3J.3.19](#))

3F.41**flexible pipe**

See *pipe* ([3P.17.11](#))

3F.42**float**

buoyant device (often spherical) used to activate a mechanism by its response to a rise or fall of the surface of a fluid

3F.43**float valve**

See *valve* ([3V.5.14](#))

3F.44**flood level rim**

lowest part of the top edge of any fixture from which water will spill when full

3F.45**floor grate**

See *grate* ([3G.19.1](#))

3F.46**floor level**

vertical distance between two adjacent floor structures

Note 1 to entry: Floor level is used when determining the height of a stack.

3F.47**floor waste**

See *waste* ([3W.6.1](#))

3F.48**floor waste gully**

See *gully* ([3G.28.2](#))

3F.49**flow controller**

device to regulate the flow rate so as to maintain a constant flow rate over a given range of pressures

3F.50**flow pressure**

See *pressure* ([3P.45.5](#))