Backflow Prevention Devices

AG – Air Gap AVB – Atmospheric Vacuum Breaker
DC - Double Check Valve PVB – Pressure Vacuum Breaker
RP – Reduced Pressure Principle Backflow Preventer

Fixture Type	Recommended Backflow Prevention
Air conditioning equipment with dual safe and unsafe water supplies or with or with direct sewer connection for wastewater	RP
Aquariums with a below-the-rim water inlet	AG/RP
Aspirator on surgical, dental, or industrial equipment operated by water ejector	AVB
Automatic devices for filling tanks, boilers, and vats which have overflow connections to a sewer	AVB
Any direct connection between water pipes and sewers, even though gate valves are used	AG/AVB
Any individual vat, tank, etc., which has in inverted water supply confectioner a water supply connection below the top of the spill rim	RPRP
Baptistery with below-the-rim water connection	AG/AVB
Bath with below-the-rim water connection	Not Allowed
Bedpan washer and sterilizer with below-the-rim water connection, or with inverted water supply subject to direct contamination	AVB
Bidet with submerged inlet	AVB
Boilers	AG/RP
Boilers	AG/RP
Bird bath with submerged inlet	AG/RP
Cellar drains of the water ejector type	AG
Cistern supply in private home, cross connected with the city supply	RP
Coffee urn with direct water supply and sewer connections	AVB
Combination faucet with one safe and one unsafe supply	AVB
Condenser on medical and industrial equipment	AG/RP
Cuspidor with water supply connection	RP
Commercial dishwashing machines	AVB
Dual water supplies, such as hot water supply from an unsafe source	AG/RP
Dental cuspidor and saliva ejector with unprotected water supply connection	RP
Drinking fountain with submerged water inlet or with the water supply line passing through the drain	Not Allowed
Dishwasher with water inlet below the rim	AVB
Dual water supplies cross connected in factories, etc.	RP
Egg boiler having direct water supply and sewer connections	AVB
Ejector actuated by direct water connection	RP

Fixture Type	Recommended Backflow Prevention
Filter with waste connected direct to sewer	AG
Fish pond with submerged water inlet	AG/RP
Floor drain with flushing connection, often used in operating rooms	AVB
Flushometer valve not protected with siphon breaker	AVB
Foot tub with submerged water inlet	Not Allowed
Floor drain having automatic device for sealing	AG
Frost-proof water closet, whether or not the valve drains to the sewer or to the ground surrounding the sewer	AVB
Fire Hydrant with drain connection to sewer or weephole	RP
Garbage can washers	RP
Gas-type chlorinator with dual feed to mixing basin and clear well	AG/RP
Grease trap with water supply connection for flushing	AG
Hose for sink, laundry tray, soap kettles, etc.	AVB
Hose outlets for washing down industrial, commercial, or other equipment	AVB
Hydraulic elevator with waste connection direct to sewer	AG
Hospital equipment such as autoclave, instrument sterilizer, utensil sterilizer, etc., with submerged inlets and with direct connections to the sewer	RP
Industrial processes requiring direct water connections	RP
Industrial water supplies process appliances with direct water supply connections not having adequate air gaps	RP
Kitchen fixtures with common waste and supply lines	Not Allowed
Laundry machinery with common waste and supply lines	RP
Laundry tub with submerged inlet	RP
Lavatory with submerged inlet or with hose connection extended into the fixture, such as used by barbers or beauticians with hair-washing apparatus	AVB
Lawn sprinkling systems	PVB/DC
Lawn sprinkling systems with automatic chemical dispenser	RP
Leaky water main or service near sewer	RP
Make-up water tank at swimming pool with below-water inlet	AG
Ordinary home and store-type evaporative air cooling units, with a float valve to maintain water at a constant level	RP

Fixture Type	Recommended Backflow Prevention
Pump used for dual purposes, with one safe and cone unsafe supply	AG/RP
Pump used for unsafe material having a direct water connection for priming	AG/RP
Pump pit with drain connection to sump or sewer line	AG
Rubber hose with hand control or self-closing faucets attached, as used in connection with baths, industrial vats, containers etc.	AVB
Refrigeration equipment with water cooling	AG/RP
Rubber hose connection extending water line to below the overflow rim of sinks, lavatories, tanks, tubs, laboratory apparatus, etc.	AVB
Sealing ring on sewage pump with direct water connection	AG/RP
Sewage lift with direct water connection	AG/RP
Sinks with below-the-rim water inlets	Not Allowed
Sludge line with direct water connection for flushing	AG/RP
Sterilizers of all kinds, both medical and dental, with submerged inlets	RP
Still with direct water connection	RP
Steam table with water supply connection entering the bottom of the table	AVB
Seat-action toilet with pressure tank with a flush valve in or attached to the bowl	AVB
Swimming pool with direct water connection	AG/RP
Siphon flush tank with water connection below the overflow rim	AG
Therapeutic bath with submerged inlet	AG
Toilet equipped with flushometer valve attached to the bowl	AVB
Tumbler washing in beverage sink having submerged inlet	AG/AVB
Tank with inverted supply or below-the-rim supply	AG
Urinal having direct flushing device	AG
Vat with inverted supply or below-the-rim supply	AG/RP
Water softener overflow pipe	AG
Water cooler improperly designed and using toxic refrigerant which may pollute the water supply	RP
Watering troughs (dairies, hog farms, and horse stables)	AG/AVB
Water-operated aspirator on a suction flask in laboratories, etc	AVB
Water closet of the hopper type with pressure tank having a flush valve in or attached to the bowl	AVB
X-ray developing tank with submerged water supply inlet	RP
Yard hydrant constructed such that ground water may drain into the water supply	RP