



## Backflow prevention

Hydro Systems Company was established in 1963 in Cincinnati, Ohio, USA. Our origins were in manufacturing pressure washers. In 1983 we decided to focus our efforts on the relatively new dilution control market, and have since become the world's largest independent manufacturer of proportioning and dispensing systems. We maintain a commitment to providing the most current and up to date backflow prevention on all of our units.

Chemical dispensers are typically connected to potable water systems and therefore need backflow protection to prevent the concentrated cleaning chemicals from contaminating the water distribution system.

Chemical dispensers, and specifically the backflow protection provided therein, are controlled by a National Standard - American Society of Sanitary Engineering (ASSE) 1055: Performance Requirements for Chemical Dispensers in the US and The Canadian Plumbing Standards Association (CSA) has developed plumbing standards for use throughout Canada.

### Canadian Standards:

#### B125-98 Plumbing Fittings

Hydro Systems' Air Gap eductors and E-gap eductors used in chemical dispensers are listed to CSA standard B125-98. This standard requires Hydro dispensers with built-in backflow preventers have the backflow preventers tested to CSA standard B-64.



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## **B64-94 Backflow Preventers and Vacuum Breakers**

The B64-94 standard defines requirements for stand-alone backflow preventers and vacuum breakers. Hydro's E-gap eductor and Air Gap eductors are not for sale as a stand-alone backflow preventer and therefore, are not listed to this standard. Hydro's eductors are acceptable backflow preventers when used in chemical dispensers, and thus, are listed to CSA standard B-125. The eductors have been tested to B64 as required by B125 section 4-5, and thus, are acceptable backflow devices as defined by the CSA.

## **US Standards:**

Two National Plumbing Codes are in force throughout the USA: the International Plumbing Code (IPC) written by the International Codes Council (ICC), and the Uniform Plumbing Code (UPC), written by International Association of Plumbing and Mechanical Officials (IAPMO). States or cities typically adopt one or the other to control plumbing installations in their regions. Both plumbing codes require adherence to ASSE 1055 requirements for chemical dispensing equipment. Hydro chemical dispensers with built-in Air Gap or E-Gap eductors meet ASSE 1055 Performance Requirements and are listed with the ASSE.



**Here, briefly, are the benefits of using proportioning equipment:**

- Environmental Friendliness: Automatic dilution helps prevent chemical "over-doses" from being dumped into sanitary sewers, or other places where they can harm water supplies. Also, this equipment makes using concentrated chemicals easier, and shipping concentrates uses less fossil fuel than shipping enough ready-to-use products to accomplish the same amount of work. There's also a lot less solid waste packaging to dispose of, too.
- Safer work environments: By automatically mixing concentrates with water, workers don't have to lift heavy containers as frequently, reducing back strain, and their exposure to the concentrated chemicals is reduced as well. Properly diluted chemicals can also help to reduce "slip-fall" accidents by leaving surfaces clean without depositing a slippery residue.
- Increased productivity: Workers can spend their time cleaning, not measuring and mixing the solutions they need to perform their work. Training time is also shortened since workers don't have to learn to mix the products.
- Cleaner work areas: Consistent dilution of cleaners to the manufacturer's specifications helps concentrates work as they are designed to work. Overly rich mixtures can leave residues or even damage the cleaned surface. Overly weak mixtures can leave the "cleaned" surface unsanitary.

**Certain States and or municipalities may require other forms of backflow. Hydro is happy to assist you should you require more information. Some of the options we can provide are:**

**E Gap units with above certifications.**

**Air Gap units which meet or exceed building code requirements.**

**No water units for dosing**