



PLANET FRIENDLY®
Est. 1994

Preventing Scale and Bacteria with 2 Mile Pipe Distribution

By: Mike Dewar

When Glen Hyde was developing his airport hanger loft condos in 2001, he knew his 50 grain hard Texas well water would scale the pipe in the 2 mile water distribution system, particularly if he was chlorinating the water as Texas wanted.

Further, softening the water would add operating expenses for this private airport and labor requirements not available when he was required to fly to a client's plane and in some cases rebuild a jet engine over a number of days. Hyde also did not believe the brine discharge or "soapy" shower water was desirable for his property owners.

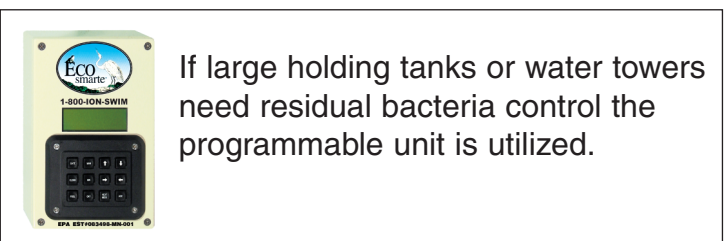
Hyde's first step was to attend state of Texas courses to get himself certified as a water district operator, a requirement in numerous states when a community well serves more than six residences. Secondly, Hyde needed an "Environmental Technology" application for his hybrid ECOsmarte system.

"Certified Water District Operator Glen Hyde knew that if chlorine was required in his two inch, two mile distribution network he would shortly have flow problems due to scale and softening was prohibitively expensive in terms of maintenance and time."

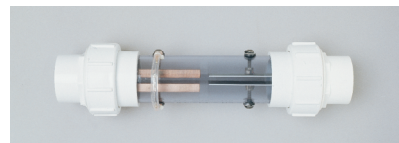


Hyde knew the challenge was to get bicarbonate calcium to prevent scale buildup across the 2 miles the PVC distribution system ran. Hyde figured that the ionization levels from ECOsmarte could be measured at the furthest point to confirm viable scale and bacteria control, and knew he needed Texas approval to pellet chlorinate at the well, remove all of the chlorine with a granular activated carbon tower (90 GPM) and insert the ECOsmarte electronic ionization and oxygenation system post GAC filter and in line.

Hyde was an early student of bicarbonate $CA_2H(CO_3)$ vs. carbonate calcium ($CACO_3$) and had no automatic dishwashers only laundry in his planned 160, 1 bedroom lofts. He secured his Watercheck® analysis to confirm nearly all of his hardness was calcium and secured the necessary filters and valves from the local Culligan distributor. Chlorine is measured prior to the GAC filter at about 1.0ppm, after the filter at ZERO, and ionization at .1ppm at the furthest controlled faucet, 2 miles from the treatment point.



If large holding tanks or water towers need residual bacteria control the programmable unit is utilized.



Schedule 40 or 80 systems available

1600 East 78th St. Richfield, MN 55423
(612)866-1200 (800)466-7946 US, Canada, Mexico
www.ecosmarte.com
www.glasspackfilter.com



TECHNICAL SPECIFICATIONS

MECHANICAL & PLUMBING

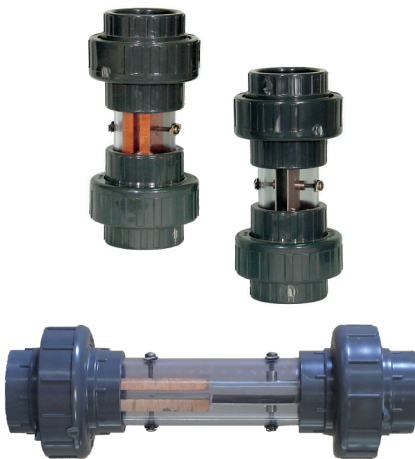
Operating Press. Max. 150 PSIG
Operation Temp. Max. 120° F
Tank listing and structural integrity requirements only.

OXYGEN ELECTRODES

Proprietary composite material

IONIZATION ELECTRODES

100% Pure Copper



ELECTRICAL

Input Voltage: 110 to 267 Volts, Specify
Output Voltage: 100 VA Class UL CSA
Compliance Power Supply
GPM: Each Unit 800 GPM to 6000 GPM

Commercial Systems May Require More Than One Electronics Package.

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SITES Certified

- *New Jersey* **ECOsmarte has received individual site approval working with states, counties and cities.**
 - *California*
 - *Washington*
 - *Texas*
- ECOsmarte works well with nearly all other certified water treatment strategies.**



The ECOsmarte system has been tested and Certified by WQA according to NSF/ANSI 61, Section 8



2 Mile Pipe Distribution, Flower Mound Airport



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