By Neda Simeonova

The Future of Residential Electronic Controllers


Terry Teach

Water Quality Products ***recently invited Terry Teach, director of sales and marketing/Valves and Controls for GE Infrastructure Water and Process Technologies, to share some of his thoughts on the changes of electronic controllers and their effect on the residential water conditioner market.***

WQP: *What innovations have you seen in residential water conditioners that could bring changes in the water industry?*

Terry Teach: Residential water conditioners have not seen breakthrough innovation since the original automatic configurations were released more than 50 years ago. The same basic approach has been improved upon and incrementally enhanced over this time frame. Basically, you have a tank, filled with cation exchange resin, a valve and a control that initiates and regenerates the resin on a regular basis. There have been many advances in making better resins and more efficient control valves, but the same fundamental component and operating principles still apply.

More than 25 years ago, the first electronic controllers were introduced to the water conditioning market. Although these electronic controllers left a lot of room for improvement in the areas of user interface, operating algorithms and overall reliability, they made a huge leap forward with respect to creating a water conditioner that could offer a more efficient way to regenerate using a demand-based volumetric system for initiating the process. Integrating this type of control onto conventional water conditioners allowed homeowners to reduce their salt consumption by nearly 50%, and significantly reduce the amount of water used for regeneration.

WQP: *How have electronic controllers evolved during the last 20 years?*

Terry: Since the introduction of the first electronic controls in the residential segment of our market, there have been progressive yet relatively small incremental changes to the original basic designs. When compared to electronic technology integration in other industries, you could say that we have not really kept pace. One of the biggest challenges with electronic controllers in the residential water conditioner market is that many dealer/installers have perceived them as difficult to set-up and program. They often required a great deal of data to be gathered, calculated and input into the control for it to operate at maximum capacity. Because a large percentage of installers in our industry cut their teeth on mechanical time-clock controls, they naturally felt more comfortable using this technology.

WQP: *How have the manufacturers responded to change the dealers' perception?*

Terry: All three of the major independent control valve manufacturers understand that a simple electronic controller is required in order for the technology to be more universally accepted. Pentair's (Fleck) SE control set a standard for functional, yet relatively simple programming. Shortly after the SE, Clack's new WS valve series was introduced, which featured a straight forward approach to programming and electronic control. In addition, GE Osmonics (Autotrol) new Logix control introduces the dealer to a three-step programming process. A dealer can program a Logix electronic control in less than one minute, about the same as setting a mechanical controller.

The notion that electronic controls are not as reliable or able to withstand outdoor installations has been removed with the more recent manufacturer's versions of their electronic controls.

WQP: *What other changes will manufacturers face in the near future?*

Terry: In addition to simplicity, there is a big need in the market for electronic control differentiation. Consumers are familiar with flashy home stereo systems and other consumer electronic products that offer multiple colors and very impressive graphic displays. Many studies have been done that show that the younger buying generations—X and Y—are very visually oriented. Water conditioner control manufacturers are following suit by integrating more graphics, colors and pizzazz to make a product that is more point-of-sale attractive and easy to use for the consumer.

The industry will also see more advances in electronic controls in the future. For example, controllers are now starting to feature more enhanced "low salt" alarms. In addition, it is likely that we will soon see controllers which do not require a set-up or programming. This type of control valve will likely automatically synchronize time-of-day, sense the water and resin beds condition and regenerate. These features will allow a dealer to minimize installation time, as well as provide "unique" features for the salespeople to promote that will differentiate them from other more traditional systems.

In a market where image, brand and aesthetics are becoming increasingly more important, advances in electronic control features will greatly assist the professional water treatment dealer in creating value and differentiating their products from those offered by other low-price channels to market. *wqp*

CALENDAR

January 2005

10–13 **Thirteenth International Conference on On-Site Analysis**
Crystal Gateway Marriott
Arlington, VA
tel: 847.548.1800
infoscience@ais.net
www.ifpac.com/onsite

26–28 **2005 Iowa Water Quality Association Meeting**
Valley West Inn
Des Moines, IA
tel: 515.282.9303

28–31 **National Association of Homebuilders**
Las Vegas, NV
tel: 800.368.5242

31–Feb 1 **Environment 2005 Exhibition and Conference**
Abu Dhabi, United Arab Emirates,
tel: +971 2 4446900

Send press releases to
Water Quality Products,
380 E. Northwest Hwy., Suite 200,
Des Plaines, IL 60016, or
wqpeditor@sgcmail.com

INDUSTRY NEWS

NSF Concludes Testing of Household Drinking Water Products to Provide Homeland Security Protection

NSF International in conjunction with the U.S. EPA National Homeland Security Research Center and Environmental Technology Verification (ETV) Program has recently completed verification tests of three residential point-of-use water treatment systems. The test results indicate that the three residential drinking water treatment systems could reduce waterborne bacteria and viruses in the event of intentional contamination within a municipal or private water supply during a homeland security event. The Kinetico Purefecta™, Sears Kenmore Ultrafilter 500, and Watts Premier Ultra 5 were the systems tested at the Ann Arbor, Mich. laboratories of NSF.

Milton Roy Completes Acquisition

Milton Roy Co. has completed the previously announced acquisition of Haskel International Inc., headquartered in Burbank, Calif. Haskel International manufactures a complete line of liquid pumps, air amplifiers and gas boosters for general industrial applications, along with addressing demanding product requirements in the oil and gas, defense, aerospace and automotive markets. The Haskel acquisition is expected to strengthen the Milton Roy's global position through their extensive network of international distribution and sale offices and to increase competitive capabilities by expanding critical engineering and research talents.

KX Industries Announces New President/Chief Financial Officer

KX Industries, L.P., announced the promotion of Donald Caulfield to President/Chief Financial Officer. Caulfield has spent more than 10 years with KX Industries, assuming responsibilities over the years as Controller, General Manager, and Chief Financial Officer.

General Electric to Acquire Ionics

GE Infrastructure, a unit of General Electric Co., and Ionics, Inc. announced that they have signed a definitive agreement for GE's acquisition of Ionics in an all-cash merger for $44 per share, valuing the transaction at approximately $1.1 billion plus the assumption of existing debt. Ionics is a global leader in desalination, water reuse and recycling and industrial ultrapure water services. Ionics will join GE Infrastructure's Water & Process Technologies business unit upon completion of the transaction.

Severn Trent Services and RGF Environmental Group Form Alliance

Severn Trent Services, Fort Washington, Pa., and RGF Environmental Group, West Palm Beach, Fla., have formed a strategic U.S. partnering agreement designed to broaden each company's evaporation technology offering for the industrial wastewater treatment market. The partnership enables each company to sell the other's evaporation technology, effectively expanding their respective product offerings to better meet their customers' varying applications and wastewater disposal objectives.

ResinTech Introduces New Laboratory Services Division

ResinTech, Inc., a manufacturer and supplier of ion exchange resins and activated carbon, introduces a new laboratory services division. The division will offer a wide spectrum of testing services from basic resin analysis to highly sophisticated application-driven testing. Additional information is available at www.resintech.com. *wqp*