Emerson Process Management –
Automating any valve... anywhere!
Emerson’s last cover story was published exactly three years ago. In December 2006, Valve World and Emerson sat down to talk about Emerson’s growth and recent acquisitions. High time therefore for Valve World to request the pleasure of an interview with Mr Dan Button, President, Mr David Plum, Vice-President, and Ms Sue Ooi, Global Marketing Communication Director, from Emerson Process Management. Topics up for discussion included the strengths of the company, the changes that have taken place over the past years, the development of new technology, and of course Emerson’s plan for the way ahead.

By Christian Borrmann

Three years is a long time in the valve and actuator industry. A lot of changes have taken place and of course the economic situation that started in autumn 2008 has had a major impact as well. The crisis has affected the best of companies and Emerson Process Management is no exception. Fortunately, however, the company’s strategy over the years has created a solid position helping Emerson to better ride out the storm. This was made clear by Mr Plum’s opening remarks: “Some companies only focus on a specific industry in the valve market. We serve all major markets from oil & gas, subsea, chemicals, and on to nuclear. This is the biggest strength for Emerson.” Ms Ooi adds: “Emerson Process Management Valve Automation is made from a powerful amalgamation of several companies that have been acquired over the past years. This has given the company brand names that have strong leadership positions in the market space. All these acquisitions and our development & launch of the FieldQ product enable us to offer a wide portfolio of actuation technology to our existing customers and of course also to future ones.”

“The biggest change that Emerson underwent since 2006 is that we now really offer a full portfolio of actuator and control products,” explains Mr Button. He continues, “The portfolio is becoming more complete toward our division’s vision which is ‘One Force Driving all Valves... Everywhere’. Over the past five years, we doubled the size of our business amongst others by uniting five brand names under the flag of Emerson, namely Bettis, Dantorque, El-O-Matic, Shafer, and Hytork. Emerson also acquired Damcos, a valve automation product for the marine industry, and TopWorx, a leader in valve controls. Of course, we have had some obstacles to overcome along the way, but the recent acquisition of EIM Controls demonstrates our willingness to invest to continue and...
offer our customers the best technology to suit their application and requirements.”

New technologies
Emerson has of course long been known as a leading supplier in the high and low pressure pneumatic and hydraulic actuation segments. However, it was only perceived to be a minor player in electric actuators. That position has now changed with the acquisition of EIM Controls, which was ‘a logical step for Emerson’ according to Mr Plum. “The general trend is that electronic controls are becoming more and more important, and are increasingly incorporated into pneumatic and electric actuators. With EIM on board, we can now offer our clients solutions for all valve applications on a project.”

Mr Plum is keen to stress an important point behind the EIM acquisition. This was done not only to expand the Emerson portfolio, but was seen as an important route to enhancing the scope of Emerson’s overall technology capabilities. Mr Plum: “We not only sell the product but we work with customers on the applications technology that goes with it. This means the customer can come to us and look for a solution instead of only a component to operate a valve.”

Asked what role Emerson plays when it comes to valve operating systems, Mr Plum smiles: “This is a very interesting question considering the history about these systems. If you look back in the industry you find very few people who spent much thought on the operating system for valves, because most valves had to be handled manually and only a few were automated. Then, as the industry matured and different companies came up with varying techniques, people started asking for just an actuator; something to move the valves. And now, as we end the first decade in the 21st century, we see customer requirements for bus, SIS, safety, reliability, diagnostics, non-intrusive calibration, and partial stroke all merging into what we refer to as the valve operating system. At Emerson, our focus has always been development of the complete valve operating system. Our foundation is controls and instrumentation. So we have always believed and understood that when a customer buys a product to operate a valve, they are really buying a very critical device within the process network that has strong implications on the performance of the plant. This is what makes it a really exciting time for Emerson right now. Including technology for control and diagnostics for the on/off valve is extremely beneficial for our customers.”

Mr Button adds: “Let’s face it, customers do not really want valves or actuators, they want solutions. And those solutions have to be safe and reliable when it comes to the performance of their plant. They should not worry that a valve is not working, they should not even think of the valve or the actuator at all. This would be the best sign for us that the operator systems are properly functioning.”

New product development is a key focus area within Emerson Process Management. One of the biggest developments within the company is surrounding Smart Wireless solutions which extend Plantweb’s predictive intelligence into areas that were previously out of physical or economic reach, opening the door for new possibilities in process improvement. Says Ms Ooi: “All our developments, be it improvements to existing technology or a completely new technology are all lead by the voice of the customers. The feedback will provide us with more insight of what customers are looking for;
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Emerson’s latest acquisition: EIM Controls. This picture shows the TEC2000 actuator.

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the features and benefits sets they look for in a product. With that understanding, we can then better translate customer requirements and incorporate them into our new product development process. This is in line with our THINK CUSTOMER philosophy."

“In the area of automated valves, wireless is certainly one of the most interesting developments over the past years,” confirms Mr Plum. He continues: “for example, we just launched 3 new products for valve monitoring. This breakthrough line enables users to take a wireless module and attach it to an existing HART® device in the field and allow it to communicate all of the standard diagnostics that exist inside that device, wirelessly. There is a companion product to this module which is a position monitor. This is also a wireless device which allows you to get position feedback from valves or actuators that are too remote or expensive to wire. What makes these solutions beneficial for customers, is they can avoid costs as they rethink and reprioritize their preventive maintenance programs for routine valve status to focus time and resource on where the real problems may be.”

Products for different markets

Emerson’s products for its core markets such as nuclear, oil & gas, pipelines, and subsea, continue to benefit from research and development activities. In these markets, Emerson tries to focus even more on the application specific additions due to the ever-increasing challenges. Mr Plum: “for example, in the pipeline industry the challenge is developing actuators with torque capability that corresponds with increasing valve size from increasing pipe diameters or providing detection methods for potential line breaks or pressure spikes. We have programmes underway that deal with such environmental challenges all the time. We must remain constantly up to date and I am very excited about what we will bring out in the next few years.”

Another example of developments for the core markets comes from the nuclear industry, in which Emerson has always been a major player as Mr Button indicates. “At the moment, we are qualifying our products to the current generation to meet the latest requirements of the nuclear industry.” Asked if Emerson expects more deepsea applications in the coming time, Mrs Ooi gives a positive answer: “Yes, certainly subsea will be getting more and more attention in the coming years. We are beginning to see increasing requirements for subsea products in the various world areas. We have a complete portfolio of actuation products and solution to suit the various depths requirement. This is exactly what customers are looking for when they approach Emerson. We are proud to be that company that would be able to handle & address their requirements and needs in this specialised area & application.”

And Mr Plum adds: “The trend for some of the big oil and gas companies is to move the equipment below water, as close as possible to the well. And this, as you can imagine, brings up some tough environmental, operating, and maintenance challenges which we must address. In some cases the customers really want us to widen the envelope of...
what is possible. For example, they want an actuator that will work properly at great depths and yet still be easily maintainable under various conditions. We have been working with our Dantorque brand on these deepsea applications for quite some time and are now transferring this technology success and experience to our other products as well. This applies to use in shallow or even medium water depths. This is an area that will be very interesting to follow over the coming period considering the amount of investment that is planned for offshore oil & gas and subsea.”

**Getting ready and prepared**

Now that Emerson has rounded out the product range with these highly distinctive and well-recognised brand names, the company is looking to achieve further geographical growth. Ms Ooi continues the story: “we developed a strategic marketing plan on how to approach the various world areas based on the technology, knowledge, and products that we can offer to the customers as a possible solution for their application. Our starting point is to assess the market needs of a specific region and then sit together with local customers to see how we can help them in the best possible way. If we take pipelines as an example, one of the things we want to focus on strongly is the safety and reliability of the pipelines. And here comes the strength of Emerson. Unlike other companies which may be restricted to a single type of actuator as a possible solution, we can offer a wide range of technology. And this choice makes it a lot easier for the customers to find precisely the right product for their application. Says Mr Button: “To come back to what I indicated in the beginning, our aim is to provide actuator solutions for all valves all over the world. To facilitate this, we need to be present right around the globe and not only with a sales representative. Our goal is to have sales and engineering staff in countries all over the world and where appropriate we invest in complete manufacturing facilities. This enables us to act locally with the strength of being a global company.”

Mr Plum concurs: “That is exactly right! We are a global company with a local heart. We work with the local manufacturers and end users as well as with the global players. As Dan stated, we have invested a lot to globalize our infrastructure over the past years and this must continue. Particularly for the emerging markets in the Middle East, Africa, Latin America, several parts in Asia and Central and Eastern Europe. We expect these areas to experience the majority of growth over the next years, probably more than the more developed markets. And as these markets grow, Emerson will be ready to serve them.”