These requirements were met using the Beckhoff technologies and support from the Beckhoff U.S. headquarters in Minneapolis. TwinCAT software running on a Beckhoff Industrial PC is the brains responsible for vertically lifting the 6 ton wet pipe while at the same time transferring the pipe to the next process. One of the Beckhoff many I/O networks, Interbus, is the communication channel responsible for making the massive pipe move.

Since installing the new line, purchased from Austrian manufacturer Schlüsselbauer in 1999, Royal has increased its productivity, reduced the number of employees on line and moved steps closer to its goal of running three shifts. After getting manufacturer support from Europe during the commissioning period, which is about to end, Royal’s people have peace-of-mind knowing their equipment is controlled with Beckhoff PLC systems and ongoing support is available locally.

Jim Swanson, Royal V.P./General manager, described the numerous tasks performed automatically, using Beckhoff control technology, during the manufacturing process. It takes a cage and installs it in a jacket, pours the pipe, strips the pipe, puts it in a kiln and turns the steam on. When ready to be stripped out, it automatically takes the pipe out of the kiln, delivers the cured pipe to another area where it removes the pallet and header. The machine then cleans the top and bottom pallets and puts them back into the magazine. The finished product is stripped out, turned, put on a conveyor, stenciled with product number and plant number. The pipes are then hauled away.

**Worldwide sales and support network**

Swanson said that he was relieved to find Beckhoff products (I/O systems, Industrial PC and displays, plus software) were installed by Schlüsselbauer and that Beckhoff was located in the U.S., and better yet in Minneapolis. “If and when we need a part, it can be shipped from 40 miles away rather than 2,500 miles from Austria. It’s like having a local, reliable mechanic to troubleshoot and replace readily available parts when a vehicle breaks down after going out of warranty,” said Swanson.
Royal’s Engineer and IS Manager, Steve Gentry, put it another way. “Automation technology is now a mission critical area for us. We’re on a learning curve because we didn’t have the hardware or software expertise in house.” To date, Gentry has contacted Beckhoff for a few replacement parts and foresees the need for occasional assistance from the Beckhoff application engineers in the future. Gentry recalled when a lightning strike burned out a hardware component. “We don’t yet have the knowledge or experience to troubleshoot the tough problems. Now we can get it from Beckhoff,” he said. Gentry and others in the company are looking forward to attending an upcoming Beckhoff TwinCAT and I/O training class.

In July 2003, the management of Beckhoff USA was handed over to Graham Harris. Gerd Hoppe, the previous managing director of Beckhoff USA, who had established the branch from early 1999, returned to the Beckhoff head office in Germany. Mr. Harris, an automation specialist who came to Beckhoff from Rockwell Automation in 2002, had previously been Vice President for Sales and Marketing, with responsibility for the distributed I/O business. Originally from Scotland, he emigrated to the USA after his engineering degree from the University of Glasgow. Mr. Harris has 25 years of experience in product development, marketing and sales of industrial controllers, and distributed I/Os. “This is a new and interesting position, and a key position for the expansion of the Beckhoff presence as an innovative automation manufacturer offering technologically oriented products and solutions for OEM and end users in the USA.” As the second largest market in the world after Europe, the US market offers optimum preconditions for the innovative solutions from Beckhoff, with the direct sale of products meeting the exacting requirements of US customers in terms of support and engineering.

Harris intends to push ahead with further expansion for Beckhoff in the North American market. “Customers reduce costs and increase their productivity through the use of innovative products from Beckhoff based on open standards,” explained Harris. To cope with the expected growth, Beckhoff hired three new staff for technical support and sales for their offices in Southern California and the head office in Minneapolis.